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International  
Marketing Information  
Series



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# Commercial News USA

## New Products and Trade Information

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Washington, D.C. 20230

## COMMERCIAL NEWS U.S.A.

The purpose of the COMMERCIAL NEWS USA magazine is to provide U.S. export offers suitable for dissemination through the worldwide Commercial Newsletter Service to over 100,000 foreign business officials, government representatives and other prospective buyers. This new product and trade information is specifically designed to foster and promote U.S. commercial interests in foreign markets. In addition, it informs the U.S. Foreign Service of new Commerce trade promotion programs and policy developments.

The worldwide Commercial Newsletter program plays an important role in expanding U.S. exports all over the world by publicizing information concerning new American products and technological developments and U.S. commercial exhibitions at home and abroad. Significant sales of "New Products U.S.A." further the objective of establishing the image of the United States as a primary source of quality equipment and advanced technology. In addition, Commercial Newsletters promote U.S. investment and licensing abroad.

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This information was compiled in cooperation with various government and industry officials and is believed to be reliable. However, the Commerce Department does not endorse any listed product or company herein and no responsibility can be assumed by the U.S. Government for the accuracy of this data or the outcome of any transaction with any person or firm.

Suggestions or comments regarding this publication are welcomed.

WRITE: Commercial News USA, Office of Export Marketing Assistance, Bureau of Export Development, Industry and Trade Administration, U.S. Department of Commerce, Washington, D.C. 20230; Telephone (AC) 202/377-5783.

EDITOR: CONSTANCE L. WHITE

### SUBSCRIPTION DATA

This publication is not regularly available on a subscription or gratis basis. However, it is available for review both overseas and in the United States. OVERSEAS: Copies of this publication are available for review in U.S. Embassy and Consulate "Commercial Libraries" located around the world. UNITED STATES: Copies are also available for review by interested company representatives in all Commerce Department District Offices which are located in major cities throughout the United States.

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# Meeting the International Trade Challenge

President Carter has proposed a major reorganization designed to strengthen the international trade functions of the U.S. Government. According to a recent White House press release, the primary purposes of the reorganization would be to:

- Expand exports.
- Improve enforcement of U.S. trade laws.
- Upgrade trade activities in response to the Multilateral Trade Negotiations (MTN).



Essentially, three Government groups would be directly affected by the reorganization. The proposal calls, first of all, for the consolidation of U.S. trade policy negotiations and coordination within the new Office of the U.S. Trade Representative, now called the Office of the Special Trade Representative.

Secondly, the mandate of the Trade Policy Committee would be broadened and a new Trade Negotiation Committee would be established within that body. The Trade Policy Committee, chaired by the Trade Representative, provides interagency coordination of U.S. positions in multilateral trade negotiations and certain other trade matters.

Finally, the Administration's proposal would consolidate the Government's day-to-day trade activities (except those involving agricultural products) within the new Department of Trade and Commerce (formerly the Commerce Department). As now authorized, the Department of Commerce has major responsibilities in export promotion, trade adjustment assistance, and export control.



The President's plans for the Department of Commerce drew an immediate response from Commerce Secretary Juanita M. Kreps. Mrs. Kreps commented, "The President's proposal to reorganize Executive Branch trade responsibilities responds to one of our country's most pressing economic challenges. International trade, increasingly more competitive, is more and more an important determinant of our national well being. With the implementation of the Multilateral Trade Negotiations, we will find ourselves presented with many new international trade opportunities.

"The comprehensive proposal announced (by President Carter) structures our Government to include trade among our central economic concerns. It will help us meet the rising competitive challenge and seize new foreign trade opportunities. The Department of Commerce is committed to assuring that the newly consolidated functions and responsibilities will be effectively administered."

As outlined in the proposal, the following specific steps would be taken under the reorganization to increase the effectiveness of the new Department of Trade and Commerce in its expanded role:

- Establish the post of Under Secretary for Trade.
- Strengthen the Department's lead role in export promotion by assigning it the responsibility for U.S. commercial attaches in our major trading partner countries, a responsibility now held by the State Department.
- Designate the Secretary of Trade and Commerce as an ex officio, nonvoting member of the Board of the Export-Import Bank.
- Assign the Department responsibility for Multilateral Trade Negotiations implementation support — for example, education and promotion programs, technical assistance to the private sector, data base development — as it relates to nonagricultural matters. Similar agricultural matters would go to the Agriculture Department.
- Upgrade the Department's sectoral analysis capability.
- Assign the Department the following import remedy responsibilities:
  - antidumping, countervailing duties, embargoes, national security trade investigations (now held by the Treasury Department);
  - responsibility to deal with unfair import practices under Section 337 of the Tariff Act of 1930, (now held by the International Trade Commission).

The Department would retain staffing responsibility for Section 301 unfair trade practice cases involving nonagriculture matters, held by the Special Trade Representative. Cases involving agricultural matters would be retained by the Department of Agriculture. The U.S. Trade Representative would retain final decision-authority for these cases.

The Department also would retain responsibility for export controls.

Before it can be enacted, the proposed reorganization still must be considered by the House and the Senate for Congressional approval. At the time of this writing, the Senate Governmental Affairs Committee, chaired by Senator Abraham Ribicoff of Connecticut, is hearing testimony on the bill.



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## PEOPLE

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*The unanimous Senate confirmation of Luther H. Hodges, Jr. as Under Secretary of Commerce was welcomed by Secretary of Commerce Juanita M. Kreps because of the "valuable experience and knowledge of business and economic matters that he brings to his job."*



Mr. Hodges, 42, was professor of management in Duke University's Graduate School of Business Administration during the 1978-79 academic year. In 1977, he was a candidate for a U.S. Senate seat from North Carolina. He was associated with the North Carolina National Bank in Charlotte for 15 years in a variety of corporate positions. From 1974 until his resignation in mid-1977, he was Chairman of the Board. The son of Luther H. Hodges, who served as Secretary of Commerce under President John F. Kennedy, he holds a B.A. degree in economics from the University of North Carolina-Chapel Hill which he earned in 1957, and a Master's degree in business administration from Harvard University's Graduate School of Business Administration, which he received in 1961.

Secretary Kreps commented, "I have known Luther Hodges for a number of years on both a professional and personal basis. His strong managerial, academic and economic background will be invaluable for the tasks of Under Secretary of Commerce. I welcome him to our ranks as someone who will contribute significantly to our important tasks of expanding exports and strengthening our industrial base through innovation and increased productivity."

Under Secretary Hodges said that he looked forward with great anticipation "to the challenges of the job ahead and to working closely with Secretary Kreps." Reflecting on his new role, Mr. Hodges remarked, "I see one of our immediate needs as a nation is to sell more, particularly abroad, by increasing our productivity and reviving those innovative talents that have carried this country so far."

The Department of Commerce, which was established in 1903, is charged with encouraging stable and progressive growth of the U.S. economy by promoting the development and expansion of foreign trade and domestic business.



**Celebrate with us  
the birth of a  
new coin.**

## **THE SUSAN B. ANTHONY DOLLAR COIN**

Released by the U.S. Mint in July 1979, the Susan B. Anthony dollar coin honors a great American pioneer crusader for womens' rights. The reverse side of the coin depicts the "Eagle," the Apollo 11 spacecraft that landed on the moon on July 20, 1969. This symbolic coin provides the public, as well as the retail and financial communities, with a dollar that is easier to handle than the traditional dollar note.

The new dollar coin is conveniently identified by a unique eleven-sided inner border on both sides. It is slightly larger than a quarter and weighs 1/3 as much as four quarters. Vending machines will be able to accommodate the new dollar coin, thus reducing the need for bill changers.

The Bureau of the Mint points out that the new coin is beneficial to the retail community because it saves time and reduces errors at the cash register. It also facilitates more efficient money handling and counting operations.

Unlike the dollar bill which can stay in circulation only 18 months, the new dollar coin will last 15 years or more in good condition. This lessens the burden on the financial community to remove worn and torn bills from circulation. The coin reduces the possibility of mistaking the denomination of bills, and curtails counterfeit production of the dollar.

Five hundred million of the new Anthony dollars were initially released. Director of the Mint Stella B. Hackel, in expressing her enthusiasm for the new dollar, said "We look forward to the Anthony Dollar coin becoming the most widely circulating dollar coin in American history. It is far less expensive to produce than a dollar bill. It is small and light, easy and quick to handle, and will remain in good condition during its long life in circulation. We fully anticipate that the American people will accept the new coin as a useful medium of exchange in the Nation's currency and coinage system."



# LICENSING AND INVESTMENT PROPOSALS

METAL CONTAINERS — This firm seeks licensees and/or distributors to manufacture metal containers that can be used in shipping, storing, and blending dry materials and liquids. The containers are adaptable to any type of transportation system and are hermetically sealed to guard against weather, siftage and rodents. The company says the containers require less space than drums, bags, or boxes, and they offer maximum efficiency for protecting and moving bulk materials. WRITE: Jack White, Sales Manager, Tote Systems, Dept. CN, Beatrice, Nebraska 68310 U.S.A.

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PATENTED FLUID POWER COMPONENTS — This company is seeking licensees to produce patented controls which include energy conserving valves, power cylinders/actuators and pumps operated by pressure. WRITE: Mr. R.S. Pauliukonis, President, Patentrol Corporation, Dept. CN, 6660 Greenbrier Drive, Cleveland, Ohio 44130 U.S.A.

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LIVING ORGANISMS FOR WATER POLLUTION CONTROL — This firm introduces a new pollution-control liquid additive for sewage treatment and waste water plants and collection systems, lagoons and ponds, septic systems, holding tanks and pump stations, fish hatcheries, industrial and other waste systems. "Liquid Live Micro-organisms" feed on organic matter, eliminating sludge, scum, suspended solids, grease, and odors. They are non-toxic, easy to use, and will not cause disease. The firm seeks joint ventures with sanitation companies and/or licensees to manufacture abroad. WRITE: Mr. Joseph W. Diekemper, ZAMA Group, Dept. CN, P.O. Box 1545, Medford, Oregon 97501 USA

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ELECTRIC WATER HEATER FOR ENERGY SAVING — The manufacturer claims the "Instant Flow" electric water heater provides an immediate flow of hot water with virtually no energy waste. The unit occupies less than 1 cu ft (.03 cu m) of space, weighs 6 lbs (2.7 kg), and draws power only when hot water flows from the tap. It uses 220 volt power. WRITE: Mr. Joseph Diekemper, ZAMA Group, Dept. CN, P.O. Box 1545, Medford, Oregon 97501 USA

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PRE-ENGINEERED BUILDING SYSTEM FOR SIMPLIFIED CONSTRUCTION -- The Brenloc Corporation reports a technological breakthrough which it says will allow local unskilled workers to construct houses, schools, hospitals, warehouses, and hotels without using tools or lifting equipment. The firm seeks joint ventures with successful companies that possess a knowledge of construction finance, marketing, and management. WRITE: Mr. Frank I. Nulton, Brenloc Corporation, Dept. CN, 389 Prospect Avenue, Princeton, New Jersey 08540 U.S.A.

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WATER-BASED EPOXY FORMULATIONS -- This U.S. firm seeks additional overseas licensees for "Hyderpoxy," a water-based epoxy formulation suitable for sealing anything from basement walls, roofs, and floors to mines and hydroelectric dams. WRITE: Mr. Milton S. Salmon, Allied Products Corporation, International Licensing Division, Dept. CN, 145 Witherspoon Street, Princeton, New Jersey 08540 U.S.A.

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NEW DEVICE FOR CLIMBING UTILITY POLES -- The "Sur-ClimR" is made of aluminum alloy and stainless steel pins, weighs 30 pounds, and is designed to make climbing a telephone pole safe even under severe weather conditions, according to this manufacturer. The device reportedly can maneuver around obstacles on a pole, and can be modified to climb concrete poles. At elevated working levels, "Sur-ClimR" allows the worker to maintain a comfortable sitting position. WRITE: Frank Fonte, President, Climb-X Corporation, Dept. CN, P.O. Box 18445, Tampa, Florida 33679 U.S.A.

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CONCENTRATED "KNOW-HOW" IN A DRUM -- Lester Laboratories seeks chemical manufacturers as licensees to produce a variety of industrial products. Using a special process, licensees will add locally available commodity chemicals to concentrated ingredients shipped by the firm. Final products include water treatment compounds; scale and corrosion control agents for cooling towers, air washers and boilers; static electricity controls for textile, paper and plastics industries; cleaners for electrostatic precipitators. Local manufacturers need to have a 728 gallon (2,800 liter), 316 stainless steel or equivalent glass-lined mixing vessel. WRITE: Lester A. Friedman, Jr., President, Lester Laboratories, Inc., Dept. CN, 2370 Lawrence Street, Atlanta, Georgia 30344 U.S.A.

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## NEW PRODUCTS U.S.A.

*The following product information has been selected by the Department of Commerce for promotion through the New Product Information Service (NPIS). This information is also made available by Commerce on a selected basis to VOA for worldwide broadcasting. While the firms mentioned in Commercial News USA are believed to be reliable, no responsibility can be assumed by the U.S. government or its representatives for the accuracy of the new product descriptions which are based on information supplied by the listed U.S. firms. Both technical and non-technical products are deliberately included to ensure worldwide market applicability. Please reprint as many new product descriptions as possible.*

### **AGRICULTURAL MACHINERY AND EQUIPMENT (Including Animal Husbandry and Veterinary Sciences)**

**NEW TRANSMITTER IMPLANT FOR ANIMAL RESEARCH** — Researchers in medicine, pharmaceuticals, ecology, and veterinary science will be interested in these combination demodulator and transmitter units designed to give a direct readout of body temperature and a metered readout of heart rate. Surgically implanted, they can be used on untethered animals for easier data acquisition. The battery life depends upon the size of the animal, giving some 20 days of continuous transmission for small animals (turtles, squirrels etc.) and longer transmissions for larger animals. The transmitters sell for \$300, the demodulator unit for \$1,200. WRITE: Janet J. Glocker, Secretary-Treasurer, Biotelemetry Systems, Inc., Dept. CN, P.O. Box 10, Rush, New York 14543 U.S.A.



**MULTI-PURPOSE TRACTOR** — Designed to be durable, the "Tuff-bilt" tractor gives the operator complete forward visibility and features two three-point hitches with front and rear hydraulic lifts to facilitate the changing of implements. "Tuff-bilt" is equipped with a 16-horsepower engine and a 3-speed hydrostatic transmission which permits a smooth increase in power. The tractor has an 84 in (213 cm) turning radius and is said to be easy to maneuver and operate. Over 15 optional implements are available (including cultivators, planters, plows and mowers). It sells for \$3,500. WRITE: Bobby Wallace, President, Tri Tractor Manufacturing Co., Inc., Dept. CN, Rt. #1, Highway 19 North, Cumming, Georgia 30130 U.S.A.



**LOW-COST IRRIGATION SYSTEM** — Designed for inexpensive irrigation of small fields (about 40 acres, or 16.2 ha), the "Omni" system can be expanded to service areas as large as 130 acres (53 ha). This miniature center-pivot system is adaptable to both high and low pressure applications and is ideally suited to fields of irregular shape. "Omni" consists of a 5-tower machine using 5 in (12.7 cm) irrigation pipe. Its low water requirements are especially applicable to areas where water is scarce. The price is \$9,000. **WRITE:** C.D. Magdaleno, Export Manager, Lockwood Corporation, Dept. CN, P.O. Box 160, Gering, Nebraska 69341 U.S.A.

**AGRICULTURAL SPREADER FOR ANIMAL MANURE** — Able to handle frozen, solid or liquid manure from dairy, beef, hog or poultry operations, this unit uses flail chains to pulverize and discharge a uniform, 20-foot wide (6 m) layer of manure. The spreader features fold-down lids and convenient side loading. There are two models available, holding 154 and 194 cu ft (4.2 and 5.2 cu m) of manure, and both can be operated from the operator's tractor seat. Agent and distributor inquiries are welcome. The spreader sells for \$2,200 to \$7,900. **WRITE:** Samuel E. Greeley, Director for International Marketing, Chromalloy Farm & Industrial Equipment Co., Dept. CN, P.O. Box 490, Harvard, Illinois 60033 U.S.A.



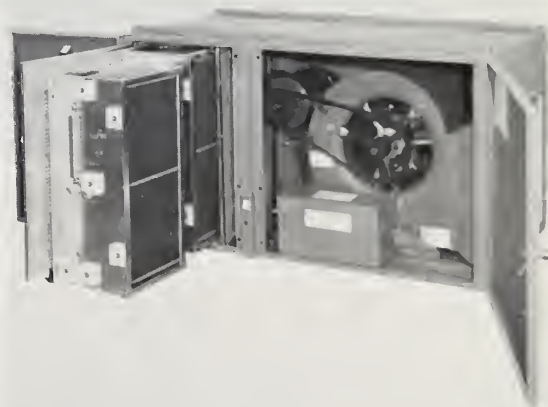
## AIR AND WATER PURIFICATION & POLLUTION CONTROL

**NON-CORROSIVE WATER FILTRATION UNIT** — The "Poly-Filter" uses a high-performance sand filter designed to handle fresh water, salt water, and chemical filtration applications. The body of the unit, made from cross-linked polyethylene (a substance of high molecular weight), is non-corrosive and extremely resistant to damage, while the filter itself is unaffected by temperatures ranging from 200 to -40 degrees F (93.5 to -40 degrees C). Designed primarily for swimming pools, the "Poly-Filter" can also be used for industrial processes. It sells for \$150. Distributors and agents are sought. **WRITE:** Jim Lincoln, Vice President, Universal/Landon, Inc., Dept. CN, 3322 Garden Brook Drive, Dallas, Texas 75234 U.S.A.

BELT PRESS FOR WATER-REMOVAL PROCESSES — This belt press is used to separate water from solids in industrial or municipal applications. Because its operation is continuous (rather than a "batch" process), it is well suited to removing water from waste materials or for extracting water from pulpy or fibrous materials. Ruggedly constructed, it is simple and economical to operate and maintain. End-users include: municipal waste treatment plants and industry groups (leather tanning, food processing, timber and paper, chemicals, mining, petroleum, and many others). The press sells for \$50,000. WRITE: Jack E. Watkins, Vice President Marketing, Stanford Environmental Products, Dept. CN, 1032 Elwell Court, Suite 126, Palo Alto, California 94303 U.S.A.

WATER DESALINIZATION EQUIPMENT — This self-contained unit uses reverse osmosis to remove salt, bacteria, and other pollutants from sea water or brackish water, producing clean water for drinking, bathing, and cooking. The manufacturer states this process is less expensive, and uses 70 percent less energy than conventional purification techniques based on heat. Available units offer capacities of 100 to 2,600 gal (380 - 9,880 l) per day. The machines operate on electrical power (115 V/60 Hz or 220 V/50 Hz) without assistance from motors or propulsion systems. They sell from \$3,700 to \$12,500. WRITE: Mr. Khalil Amr, President, Mamco Inc., International, Dept. CN, 2050 Stemmons Freeway, Suite 118, World Trade Center, Dallas, Texas 75258 U.S.A. Telex: 73-0358 Cable: MAMCO DAL

ELECTRONIC AIR CLEANER — The "Filtair" eliminates air pollution from industrial and commercial environments, removing all particles down to .01 microns in size, this firm reports. Particles entering the cleaner are charged by ionized wires and remain in collecting plates as air passes through the unit. The product saves the user money because it reduces air conditioning, heating and maintenance costs. "Filtair" weighs 310 lb (140 k) and sells for \$1,000 to \$2,500. Agent inquiries are welcome. WRITE: Edward B. Sabish, Director of Marketing, Filtair Corporation, Dept. CN, P.O. Box 1441, Waukesha, Wisconsin 53187 U.S.A.





**STACK SAMPLING PROBE** — The "Bendix Extractive Stack Sampling System" is used for continuous monitoring of smoke stack emissions such as oxides of nitrogen, sulfur dioxide, total reduced sulfur compounds, carbon monoxide, carbon dioxide, oxygen, and various hydrocarbons. Monitoring is facilitated by a blow-back particle concentrator, an acid mist coalescer, and a permeation distillation drier which provide a clean, dry gas sample. The system can be programmed to monitor multiple stacks on a sequential basis, and it offers simple, low-cost installation of the probe. Suggested for the petrochemical and the pulp/paper industry. The price is \$15,000. WRITE: N.L. Petrowski, Supervisor of Sales, Bendix Environmental & Process Instrument Division, Dept. CN, P.O. Drawer 831, Lewisburg, West Virginia 24901 U.S.A.



**OIL SPILL RECOVERY SYSTEM** — The "Pollution Recovery System" is an array of inter-related equipment designed for the containment and removal of oil spills on land and water under most weather conditions. Two basic models are available: a specially constructed truck capable of working on land, though equally effective on shoreline operations, and a steel-hull work boat which is designed for efficient operation in water. The system operates with a minimum of personnel, and is suggested for oil companies, port authorities, and private contractors. The truck sells for \$135,000, and the boat sells from \$300,000. WRITE: Frank J. Samsel, President, Samsel Rope and Marine Supply Co., Dept. CN, 1310 Old River Road, Cleveland, Ohio 44113 U.S.A.



## AUDIO — VISUAL (Including Educational/Training Aids)

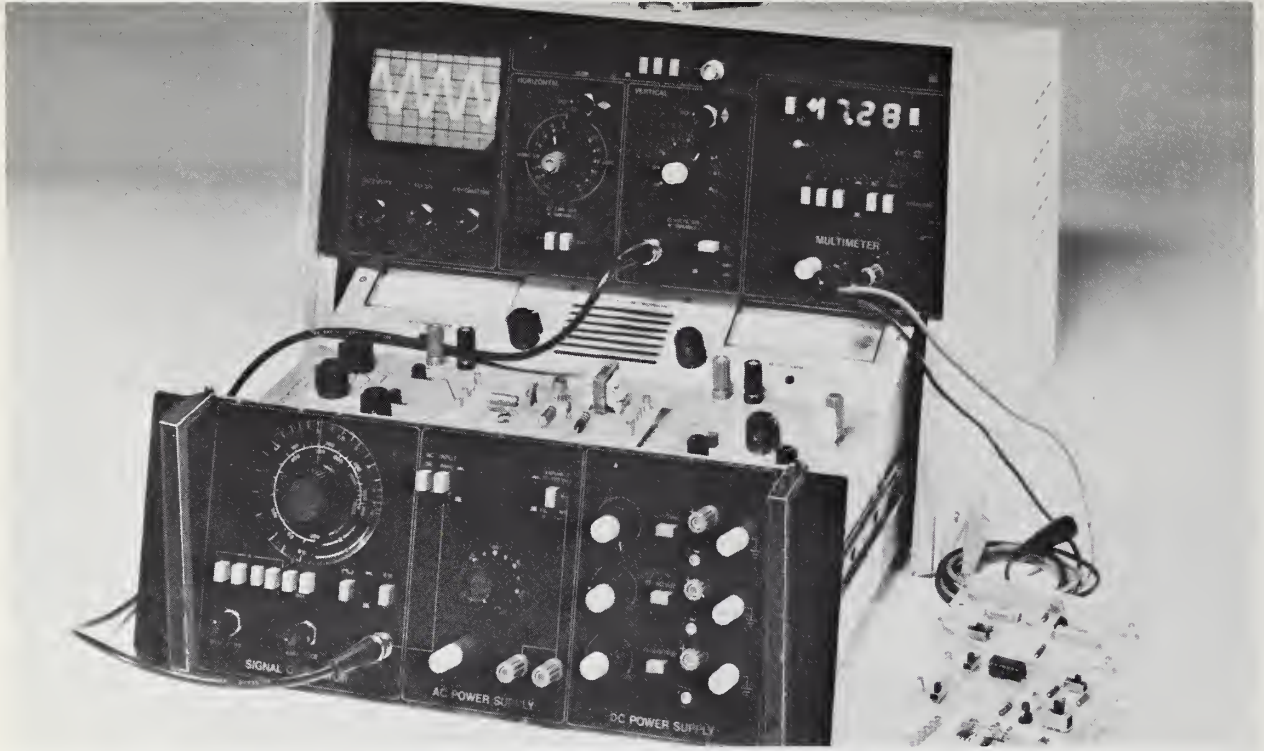
LIFELIKE TALKING MANIKINS — "Sally Audio-Animated Robots" are lifelike, lifesize manikins that can be easily programmed within minutes to move and speak, run slide presentations, sell products, even hold conversations with each other. Priced from \$3,500, each robot (male or female) comes equipped with a simple-to-operate programmer unit and a professional audio recorder. Because they are portable and totally automatic once programmed, these animated "performers" are ideal for carnivals, amusement centers, etc., as well as for shopping centers and other retail operations which can use the robots to attract crowds and sell products. Distributor inquiries are welcome. WRITE: John D. Fox, Jr., Executive Vice President, Sally Unlimited, Inc., Dept. CN, 567 Bishop Gate Lane, Jacksonville, Florida 32204 U.S.A.



PORTABLE SOUND SYSTEM — "Voicette 200" is a small, lightweight (2.75 lb, 1.1 kg) public address system used indoors or outdoors in speaking to groups of 10 to 100. It is operated by a built-in "Ni-Cad" battery pack, which can be recharged up to 1,000 times using a converter (included). This product offers adjustable volume control and an on/off switch located on the microphone for easier operation. It features professional styling, and may be worn with a shoulder strap or on a belt. Potential end-users: teachers, tour guides, sales groups, etc. The system sells for \$100. WRITE: Ira Molay, President, Audiophonics Corp., Dept. CN, 95 Rantoul Street, Beverly, Massachusetts 01915 U.S.A.

PHONOGRAPH TURNTABLE FOR PROFESSIONAL USE — The new "Galaxy Turntable," engineered for recording studios, ice skating rinks, dance studios, and other professional users, features a d.c. (direct current) motor with an electronic speed control (plus or minus 10 percent variation of either 33 1/3 or 45 revolutions/minute playing speed). An LED (light-emitting diode) display indicates record speed. Switching is digital with remote control of starting and stopping (for the operator's convenience). The price is \$545. WRITE: Robert D. Sidwell, President, QRK Electronic Products Inc., Dept. CN, 1568 North Sierra Vista Avenue, Fresno, California 93703 U.S.A.

STEREOPHONIC SOUND IN MOTION PICTURE THEATRES — Designed for use with commercial motion pictures, the "Starscope" sound processing unit can improve the quality of sound in theatres at a minimal additional cost. Any optical film sound track can be split and printed; "Starscope" interprets the split and produces stereophonic sound. The system includes an optical sound processor, power amplifier, monitor, speaker, and a DC exciter lamp. The manufacturer is seeking distributors. The price is \$7,000. WRITE: Steven C. Randall, Director of Sales, Eprad, Inc., Dept. CN, P.O. Box 4712, Toledo, Ohio 43620 U.S.A.



ELECTRONICS TRAINING CENTER — The "Mini-Lab Model 400" is a self-contained portable training center suggested for schools and universities where electronics courses are taught, and for industries requiring electronic experimentation. According to the manufacturer, it combines all test instruments necessary for the performance of experiments on conventional electronic circuits and contains a.c. (alternating current) and d.c. (direct current) power supplies, a sine/square-wave signal generator, a.c./d.c. digital multimeter, oscilloscope, and a test console adapted to a broad range of "plug-in" printed circuit boards. The unit sells for \$1,800. WRITE: Drasutis Gudelis, President, Nida Corporation, Dept. CN, 350 Fairfield Avenue, Stamford, Connecticut 06902 U.S.A. (Photo above)

STAGE LIGHTING EQUIPMENT — The "Intelligent Lighting System" makes it possible for stage, studio, or planetarium lighting to be easily controlled by a computer terminal. Using a floppy disk memory and library storage system, the computer can memorize light cues for up to 400 dimmer control channels, provide any cue or stage note in less than one-half of a second, and simultaneously monitor many other lighting functions. Additional memory disks can be programmed for ticket sales, stock inventory control, payroll, etc. and an optional high speed printer is available. The system sells for \$83,000. WRITE: Larry Riddle, Vice President, Television and International Director, Electro Controls, Inc., Dept. CN, 2975 South 300 West, Salt Lake City, Utah 84115 U.S.A.





**ACOUSTICAL ENCLOSURES FOR SYMPHONY ORCHESTRAS** — Constructed from sturdy, lightweight aluminum and fiber glass, these "Acoustical Symphony Enclosures" enhance the sound projection of orchestras, opera groups, and other concert performers. The firm states that the specially designed shells help both the orchestra members and the audience to hear the music in a blended, balanced manner. Easy to store, functional in appearance, the enclosures are custom-designed for each concert hall and sell from \$15,000 to \$30,000. Agents are actively sought. WRITE: David Hale Hand, President, Stage Engineering & Supply, Inc., Dept. CN, P.O. Box 2699, Colorado Springs, Colorado 80901 U.S.A.

**FILM CHIP VIEWER/ENLARGER** —

This compact, high resolution table top viewer permits direct viewing and analysis of film chips and roll film of widths up to 9.5 in (241 mm). The viewer, equipped with a 15 x 15 in (381 x 381 mm) rear projection screen, displays magnified images 8.5 and 19.3 times the original size. The light intensity at the screen is continuously variable up to 200 foot lamberts. Recommended for use in aerial photo-reconnaissance, mapping, and photogrammetry, and for the medical profession. The viewer sells for \$18,000 to \$40,000. WRITE: Mr. Horst A. Schober, Executive Vice President, Hoppmann Corporation, Dept. CN, P.O. Box 1463, Springfield, Virginia 22151 U.S.A.





## AUTOMOTIVE

(Including Diagnostic Servicing and Safety Equipment)

AUTOMOTIVE ACCESSORY IMPROVES CARBURETOR EFFICIENCY — This firm explains that its new "Dyna-Mix" product improves the performance of an automobile's carburetor by helping it to burn exhaust gases from the PCV (positive crankcase ventilation) valve. The unit mixes precise amounts of clean air with these gases, producing a powerful fuel mixture while simultaneously eliminating most harmful exhaust emissions. Suggested for any automobile operator, the "Dyna-Mix" is sold for \$20. WRITE: Phil Reinhardt, President, Innovations, Inc., Dept. CN, 1777 West Camelback Road, Suite M-104, Phoenix, Arizona 85015 U.S.A.

NEW UNIT MONITORS OPERATING LIFE OF EQUIPMENT — Foreign distributors and direct sales are sought for the "Datcon Hour Meter" which measures the actual operating life of automobiles and other heavy-duty machinery. Because of its solid-state construction, the firm explains, the meter offers a low error margin and high accuracy. It registers start/stop instantaneously and is immune to false "triggering" (activation) by noise, shock, or vibration. The meter is suggested for agricultural, automotive, and construction supply shops. The price range is \$12-\$19. WRITE: Louis Agnesini, Vice President, Paul E. Moss & Company, Inc., Dept. CN, 515 Rockaway Avenue, Valley Stream, New York 11581 U.S.A.



ENERGY-EFFICIENT AIR FILTER SYSTEM — The "Filt-Air Dust Control" is engineered for use in auto body shops, paint shops, and similar operations where air-borne dust and other pollutants may harm workers' health or hamper paint finishing jobs. The unit's energy-efficient design circulates warm air trapped near a room's ceiling, allowing heat savings of up to 25 percent. Equipped with easily replaced filters, one "Filt-Air" system serves 2,000 sq ft (180 sq m) of room space and sells for \$975. Agents are wanted. WRITE: Bruce A. Larson, President, American Technology Inc., Dept. CN, 2340 Susquehanna Street, Harrisburg, Pennsylvania 17110 U.S.A.

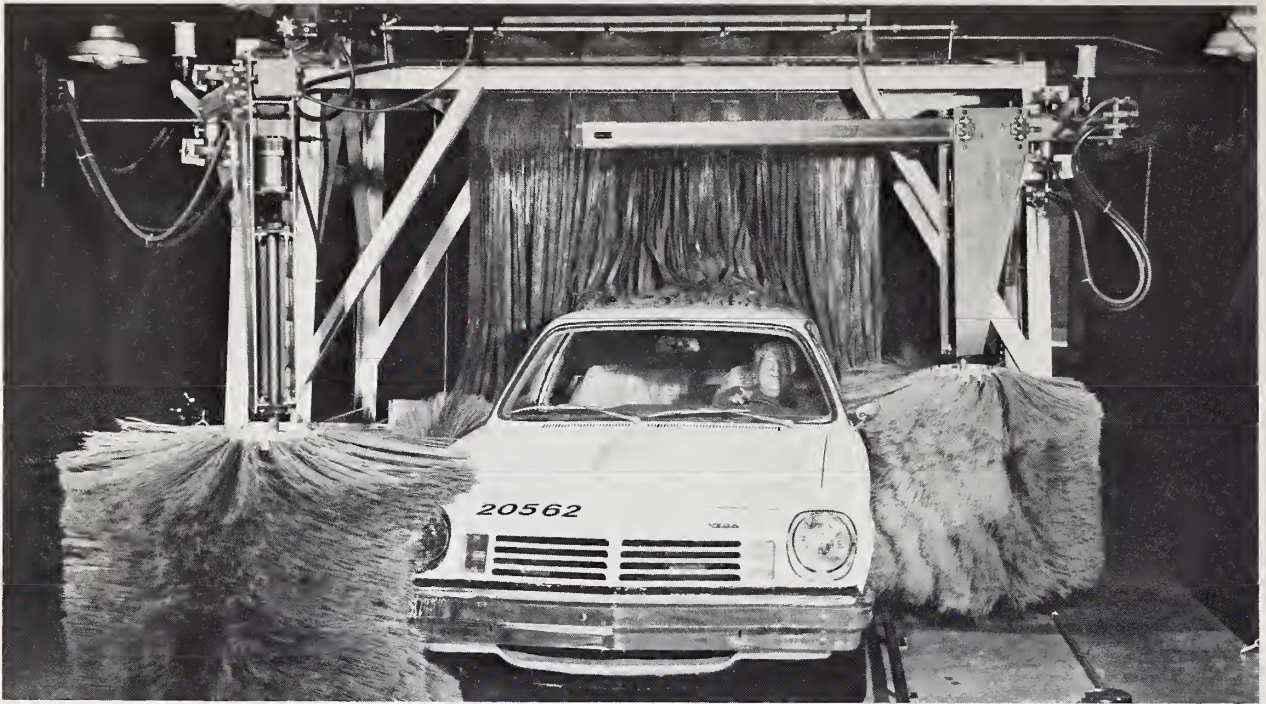
MOTOR OIL FOR GASOLINE, DIESEL ENGINES — Applicable to passenger cars, buses, even diesel-powered trucks, "Lion Black Treasure Motor Oil" includes molybdenum, an ingredient active in reducing internal fluid friction throughout the operating temperature range of the engine. Because of this, the company explains, the oil can increase engine power, fuel economy (by as much as 2-5 percent), and time between oil changes. As a result, the product significantly reduces lubricating costs as compared to other oils. Agent inquiries are welcome. WRITE: W.A. Donahue, Export Manager, Petroleum & Synthetic Lubricants Co., Dept. CN, 225 Broadway, New York, New York 10007 U.S.A.

IMPROVED SEALANT FOR AUTOMOTIVE PAINTS — This company introduces its "Beauty-Gard," a paint sealant for automotive finishes which is said to withstand 60 or more washings. Formulated to perform better than auto waxes, "Beauty-Gard" is a greaseless product that is easy to apply even over previously applied wax. The price is \$100-\$200/case (12 units of sealant and 12 supplemental restoring kits). Agent, distributor, and licensee inquiries are invited. WRITE: Steven Fine, President, Marketing Flair, Inc., Dept. CN, 26416 Summerdale Drive, Southfield, Michigan 48034 U.S.A.



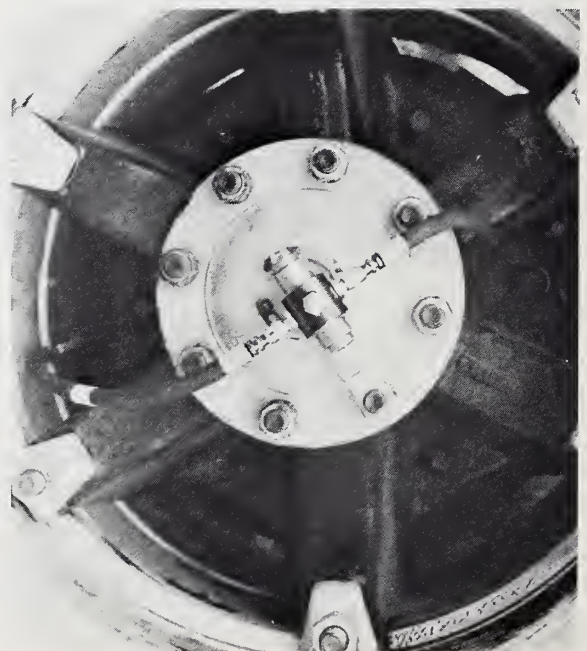
FIBER GLASS TRUCK BODIES FOR FIELD WORK — Surveyors, contractors, pest control groups, and utility companies are among the end-users of these fiber glass truck bodies, especially designed to facilitate work outdoors. Providing maximum storage space, each enclosed body offers several lockable access ports which open into the storage space at various points (including from the driver's cab). Removable work trays (attached to the body) are standard, and shelves, lighting, hooks, and a ladder rack are offered as options. Designed with strength for a long service life, the items sell from \$1,200 to \$2,000. Dealer inquiries are welcome. WRITE: Ronald D. Kindwall, President, Van Ladder, Inc., Dept. CN, P.O. Box 709, Spencer, Iowa 51301 U.S.A. (Photo above)





**AUTOMATED CAR WASHING SYSTEM** — The "N-60 Carwash" is a simple, drive-through system that is economical enough for auto dealers to purchase and use, yet efficient enough for commercial car washing operations. The manufacturer states that the "N-60" can handle up to 100 cars an hour, giving each a thorough 50-second cleaning. Listed features include: simple gravity-fed brushes; gentle cleaning devices that will not harm antennas or mirrors; and automatic, unattended operation. The price is \$14,000. Coin-operated controls are optional. Agents are sought. **WRITE:** Richard J. Shelstad, President, Nordick Industries, Inc., Dept. CN, 1125 West National Avenue, Milwaukee, Wisconsin 53204 U.S.A.

**NEW AIR PRESSURE VALVE FOR DUAL-WHEEL TIRE ASSEMBLIES** — Unequal or incorrect tire pressures can result in increased fuel consumption, tire wear, and resultant safety hazards. To prevent these problems, this firm has designed its "Tire-Tec Valve" to constantly equalize tire pressure and temperature on dual-wheel assemblies (trucks, buses, and heavy-duty vehicles). Both tires can be inflated through the one valve, and air pressure is checked by the driver using an easily visible indicator. The retail price is \$170. Agents and distributors are wanted. **WRITE:** W. Dave Crumb, Sales Manager, Tire-Tec Inc., Dept. CN, 32-10th Avenue South, Crestland Bldg., Suite 111, Hopkins, Minnesota 55343 U.S.A.





IMPROVED LUBRICATING FLUID — "Tufoil" combines the normal lubricating qualities of oil with those of low-friction particles of "Teflon" and "Fluon," (permanently suspended in the oil base). The company notes that when it is applied to metal surfaces in automobiles, trucks, etc., "Tufoil" coats the metal with these microscopic particles, reducing friction and wear for better gas mileage, improved operating performance, and longer engine life. Applicable to any metal surface where friction occurs (hydraulic systems, transmission gears, etc.), it sells for \$16. Agents and distributors are desired. WRITE: J. Randall Wilson, President, Wilson International Trading Corporation, Dept. CN, P.O. Box 488, McLean, Virginia 22101 U.S.A. Telex: 440455 - WITC-UI CABLE: WITC, WASHDC

## AVIATION

### GLIDING PARACHUTE FOR CARGO DROPS

— This high performance, air-pressurized cargo parachute is equipped with a controlled "reefing" system that precisely regulates the exposure of the canopy and assures deployment velocity from 0 to 200 kias (knots indicated air speed). The parachute is designed to overcome surface winds and to maintain a greater horizontal than vertical velocity. Able to carry up to 550 lb (247 k), the parachute can be deployed safely from 2,000 ft (600 m) above ground level to 30,000 ft (9,000 m) mean sea level. End-users include military airborne units, special forces, and anti-terrorist groups. Price is \$500 to \$1,500. WRITE: Elek Puskas, President, Para-Flite, Inc., Dept. CN, 5801 Magnolia Avenue, Pennsauken, New Jersey 08109 U.S.A.



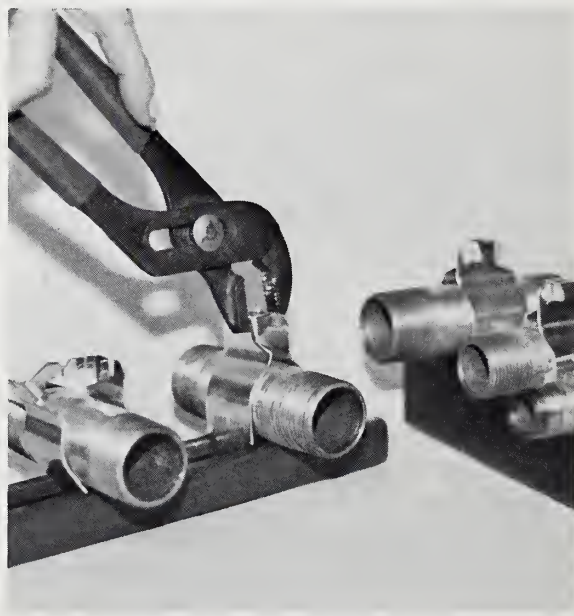
LIQUID CLEANER/POLISHER FOR ACRYLICS, HARD PLASTICS — This is a clear liquid formulation that cleans and polishes acrylics or hard plastics, simultaneously depositing a special anti-static coating. Non-toxic and non-irritating, the "Plex Clean" product can also be used on glass, chrome, plastic laminate, and other materials. It is suggested for use on aircraft, in home cleaning, and in institutional, commercial, and industrial maintenance. The firm seeks distributors and representation abroad. Distributor cost range is 80¢ (1/2 pt/235 ml) to \$4.50 (1 gal/3.8 l) f.o.b. Miami, Florida. (Freight allowance is negotiable.) WRITE: Morris H. Alderman, II, President, C. M. & T., Inc., Dept. CN, 321 Northeast 59th Terrace, Miami, Florida 33137 U.S.A.

**MOVING TARGET INDICATOR FOR RADAR SYSTEMS** — The completely solid-state "Series 8747 Digital Moving Target Indicator" features a digital memory/data processing design that adapts to any pulsed radar with a pulse repetition frequency between 0 and 3 kHz. It discriminates between fixed and moving objects within radar range, displaying on the radar screen only the objects it is programmed to detect. Each of the two cancellers (used separately or in sequence) provides an adjustable improvement factor (of targets compared to stationary objects) up to 46.8 decibels. The unit also simulates moving and/or stationary targets for testing. The price is \$50,000 - \$100,000. WRITE: Robby Epstein, Director, Radar Marketing, Metric Systems Corporation, Dept. CN, 736 North Beal Street, Fort Walton Beach, Florida 32548 U.S.A.

## **BUILDING, CONSTRUCTION AND MATERIALS HANDLING**

**LABOR-SAVING WELDING PRODUCT** — Using "Power Base" weld pins, a worker can weld metal without removing layers of paint or rust that would hamper ordinary equipment. Available in mild steel, stainless steel, and aluminum, the pins eliminate time-consuming grinding and preparing of metal surfaces. They are available with 12 and 10 gauge (2.69 and 3.43 mm) diameters and in lengths of 1 to 14 in (2.54 cm to 35.6 cm). End-users include insulation contractors, utility plants (electrical, nuclear, etc.), pipe removers, and others. Typical cost range for (mild steel) pins up to 10 in (25.4 cm) is \$7.25-\$110 per thousand. Agents and distributors are sought. WRITE: Barth Gilcrist, Vice President, AGM International, Inc., Dept. CN, 110 Shawmut Road, Canton, Massachusetts 02021 U.S.A.

**NEW CLAMPS FOR PLUMBING AND ELECTRICAL PIPES** — Using an ordinary pair of pliers, an electrical or plumbing contractor can lock the "Labor Saver Clamp" in place around a section of pipe, avoiding the need for conventional nut and bolt fasteners. The company says the speed of installation sharply reduces labor costs. The clamps are offered for pipes of 1/2, 3/4, and 1 in (12.7, 19, and 25.4 mm) diameters, and they can be applied wherever normal channel mountings are used. Retail price is \$36.85-\$41.43 for 100 pairs. WRITE: Robert L. Senter, Chief Executive Officer, 4-Way Sales Corp., Dept. CN, 537 East Gardena Boulevard, Gardena, California 90248 U.S.A.





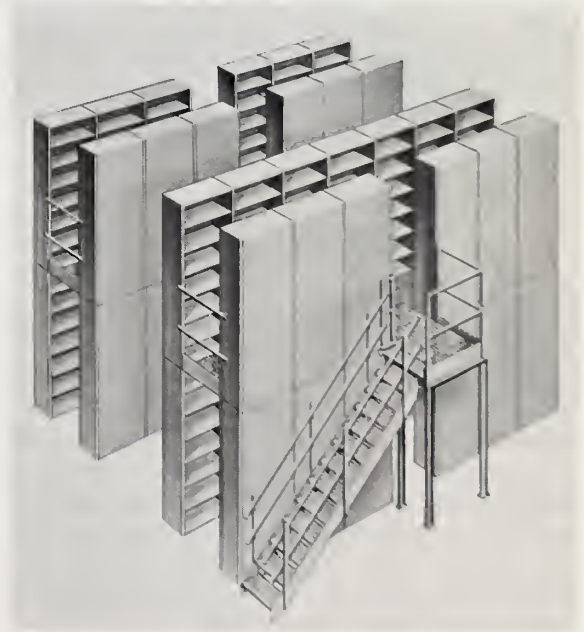
#### ENGINEERING FABRIC FOR SOIL DRAINAGE AND STABILIZATION —

"Supac" fabric is a tough, nonwoven polypropylene material used by engineers, contractors, and others to stabilize soil and enhance drainage efficiency. The fabric is said to prevent aggregate or "fill" material from mixing with the soil base under pressure from traffic or other loads. This allows an area to be stabilized with less aggregate than usual. "Supac" also provides a capillary or siphoning action which carries water away easily and efficiently. WRITE: Donald M. McCord, Senior Rep. for International Marketing, Phillips Fibers Corporation, Dept. CN, P.O. Box 66, Greenville, South Carolina 29602 U.S.A.



PROTECTIVE COATING REFLECTS SOLAR RAYS — "Plasticool," a liquid coating with high resistance to corrosion, provides a reflective barrier that resists solar heat and radiation, helping to cool any surface to which it is applied. Used on roofs and walls, it can make working conditions more comfortable inside buildings which are otherwise difficult to cool and can also lower the cost of air conditioning. The product sells from \$8 to \$15/gallon. Distributorships are available. WRITE: Edward B. Kaplan, President, Coating Laboratories, Inc., Dept. CN, 3133 East Admiral Place, Tulsa, Oklahoma 74110 U.S.A.

NEW HIGH-EFFICIENCY STORAGE SHELVING SYSTEM — This is a predesigned shelving system that can double the usable storage space for a given amount of floor area. Its "mezzanine" construction creates two levels of storage in any one building floor, while its modular design adapts easily to any room size or shape. Beginning with the basic "Starter Unit" and choosing additional units to match available floor space, the user can design an individualized system featuring all-steel construction and heavy duty shelves. End users include automotive dealers, warehouses, and others. The price ranges from \$3,818 to \$9,561. WRITE: J. L. Ammons, Export Manager, Lyon Metal Products, Inc., Dept. CN, P.O. Box 671, Aurora, Illinois 60507 U.S.A.





**THERMALLY INSULATED WINDOWS** — Up to 42 percent of the heat ordinarily lost through windows can be saved, this company explains, by using its new "Thermal Break Window" product. The aluminum frames of these windows incorporate a PVC (polyvinyl chloride) insulation layer, while the window panes are available with either double or triple glazing to minimize heat loss. Durable and almost maintenance-free, the frames are engineered to fit tightly, thus lowering leakage of warm air. The aluminum construction needs no painting. Agents and distributors are sought. WRITE: Charles E. Richardson, Present Executive President, Marketing Dynamics, Dept. CN, 4400 Sprengle Lane, Suite C, Richmond, Virginia 23228 U.S.A.

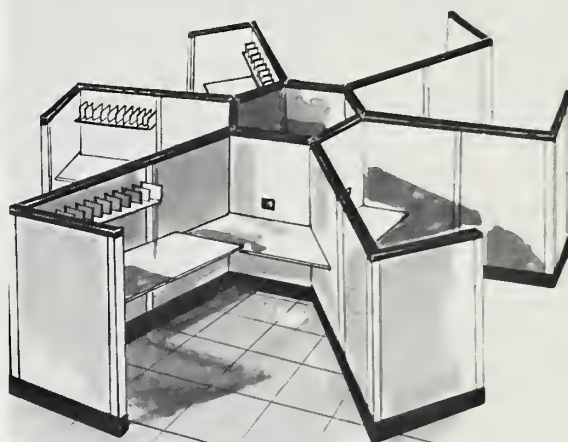


**TWO-STEP ROOFING SYSTEM** — Applied as a cold, single-component fluid, the "Karnak Granulastic" roofing system dries into a rubbery asphalt roof coating which is finished with a tough layer of colored granules. Lightweight, uniform, and seamless, this flexible roofing membrane can be used on most existing or new roofs. The liquid base can be sprayed, rolled, or brushed on by the users, whether roofers, construction firms, or maintenance crews. Agent, distributor inquiries are welcome. WRITE: Fred Jelin, Vice President, Karnak Chemical Corp., Dept. CN, 330 Central Avenue, Clark, New Jersey 07066 U.S.A. (Photo above)

## BUSINESS AND OFFICE EQUIPMENT

TYPEWRITER CORRECTION TAPE — Usable on a number of IBM and Remington typewriters, this company's "Lift Off" correction tape is provided in rolls of 22-23 ft (6.6-6.9 m), affording up to 20 percent more erasures per roll than standard tapes (usually measuring 19 ft, or 5.7 m). The tape uses a semi-dry formula which the company says is more stable under extreme temperatures and less sticky than standard tapes. Suggested for any groups using typewriters of the appropriate models, this product sells for \$8.50/dozen. Agents, distributors are wanted. WRITE: James J. Rauch, President, M & C Specialities Co., Dept. CN, 90 James Way, Southampton, Pennsylvania 18966 U.S.A.

WORK STATION SYSTEM FOR SIX PERSONS — The free-standing "Hexagon" structure can economically partition 400 sq ft (36 sq m) of floor space into individual work centers for six persons. Clustered around a central column or common power /telephone source, the stations may be fitted for conventional office equipment or for transcribers, computers, display terminals, etc. Work surfaces can be installed at any height, the firm notes, and shelves, drawers, wall cabinets, and other accessories are available. Offering semi-private accommodations for workers, the system sells for up to \$6,000. WRITE: Michael J. O'Leary, Executive Vice President, Rockaway Metal Products Corp., Dept. CN, 175 Roger Avenue, Inwood, New York 11696 U.S.A.



## CHEMICAL AND PETROCHEMICAL INDUSTRIES

PRECISION COLORING SYSTEM FOR PLASTICS — Agents and distributors are wanted for a liquid colorant system used in plastics production processes (injection, extrusion, or blow molding) which utilize "plasticating" screws. According to the firm's description, the "Injector Color System" assures uniform coloration without the spotting, streaking, and other problems common in this area of production. In addition to the colorants, the system includes a precision metering pump which maintains feed accuracy to within 1/2 percent, treating 40,000 lb (18,000 kg) of resin with only 30 gal (114 l) of colorant. Price is \$2-\$9 lb (.45 kg) of colorant. WRITE: Mrs. Karen Novey, International Sales Correspondent, Bee Chemical Company, Dept. CN, 2700 East 170th Street, Lansing, Illinois 60438 U.S.A.

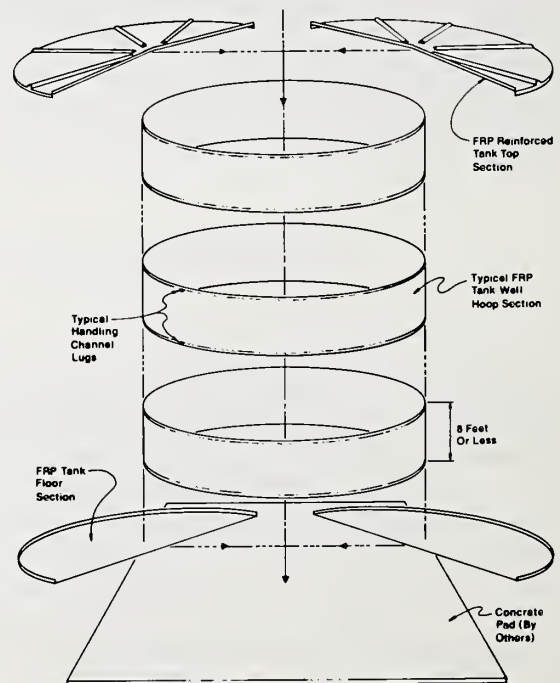


**PNEUMATIC THREAD PROTECTOR FOR DRILL PIPES** — Designed as a replacement for awkward, mechanical thread protectors in oil field operations, the lightweight "AirGrip" is a tough polyurethane product that uses pneumatic pressure to lock in place over pipe threads. The "AirGrip" is inflated with ordinary air, creating a firm grip that secures the pipe from every angle and is safe from slipping. The firm notes that the pneumatic design prevents product distortion through rough or prolonged use. The "AirGrip" sells from \$400 to \$600. Agents are sought. WRITE: W.E. Warner, Vice President, International Operations, Standco Industries, Inc., Dept. CN, P.O. Box 87, Houston, Texas 77001 U.S.A.



**STORAGE CONTAINER FOR THICK LIQUID MATERIALS** — Made from aluminum, steel, or stainless steel, the "Tote Visco Tank" provides a convenient way to handle thick, highly viscous materials such as grease, adhesives, thick paint, etc. The reusable tank features a collapsible interior lining which can be replaced whenever a new material must be stored and/or transported. The tank itself needs no cleaning after use because contained liquids never come into contact with it. Capacities up to 490 gal (1,862 l) are available. The price range is \$1,100 - \$1,700. Agent, licensee inquiries are invited. WRITE: G. W. Graham, Director - I.R., Hoover Universal, Inc., Dept. CN, Materials Handling Division, Tote Products, P.O. Box 456, Beatrice, Nebraska 68310 U.S.A. Telex: 48-4395

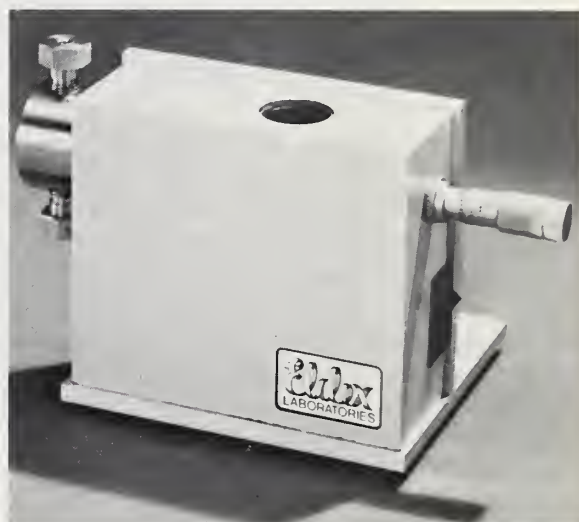
**FIBER GLASS TANKS AND PROCESS EQUIPMENT** — Any industrial group which uses, stores, or processes liquids (chemicals, foods, water, etc.) will be interested in these corrosion-resistant tanks and processing equipment. The tanks are constructed in modular form from fiber glass-reinforced plastics, and the products can be economically compressed and packed for shipment (unlike metal products), then assembled at the point of destination into a variety of end-products. For instance, the same group of modules could be assembled into four large storage tanks, a large conduit or culvert, or a series of pontoons. Agent inquiries are invited. WRITE: Robert J. Short, Chairman, Tankinetics, Inc., Dept. CN, 15030 Golden West Circle, Westminster, California 92683 U.S.A.



**ALL-PURPOSE CLEANER** — "Do It" is a highly concentrated bio-degradable cleaner which contains no inactive ingredients ("fillers"), and covers more area per unit/weight than most other cleaners. The user dissolves the powder concentrate in water and applies the cleaner by machine or by hand. Formulated to dissolve oil and grease, "Do It" effectively eliminates stains from carpets and can also clean and polish metal or tile surfaces. It is non-corrosive and ionic. Available in 1 lb (.45 kg) bottles and in drums up to 400 lb (180 kg), "Do It" sells from \$1.20 to \$1.50 per pound. Distributors are wanted. WRITE: Kenneth L. Sauter, President, Midwest LTD of Minnesota, Dept. CN, 8053 East Bloomington Freeway, Suite 132, Bloomington, Minnesota 55420 U.S.A.

#### **HIGH-PRESSURE PRECISION PUMPS**

— Suited for chemical research laboratories, pilot plants, and various manufacturing plants, these new single-piston positive displacement pumps feature a precise and consistent rate of delivery (volume). The company states that the pumps are energy-efficient and that they perform exceptionally well at low flow rates. They can produce pressures up to 5,000 pounds/sq in (346 kg/sq cm) and continuously adjustable flow rates from 4 to 480 ml (6.4 to 768 km)/hr. The extremely compact pumps sell from \$595 to \$695. Agent and distributor inquiries are welcome. WRITE: Caroline Swett, Sales Department, Eldex Laboratories, Dept. CN, 3551 Haven Avenue, #U, Menlo Park, California 94025 U.S.A.

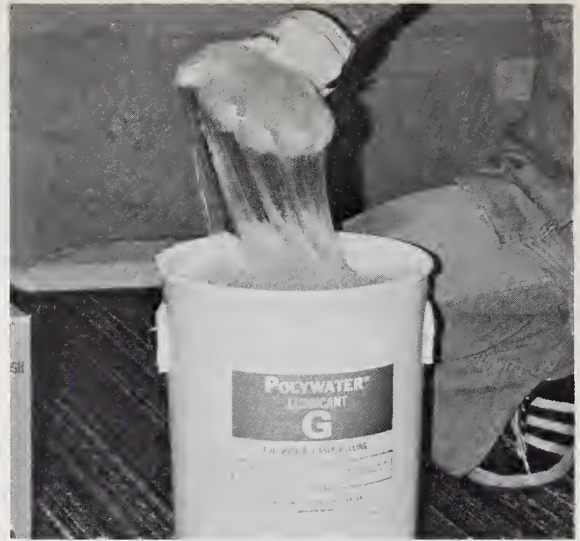


## **COMMUNICATION SYSTEMS AND EQUIPMENT**

**HORIZONTAL DRILL FOR INSTALLING UTILITY LINES** — The "Dyna Mole" drill is used to cut horizontally through rock or softer material for installing utility lines. Able to penetrate rock for distances up to 60 ft (18 m), drilling a hole of 1 1/2 in (3.8 cm) diameter, the unit actually inserts the utility cable, pipe, or tubing as the drill rod is withdrawn. Ideal for installing utility lines beneath highways and other obstructions, the "Dyna Mole" offers the user a choice of coolant/lubricants (air or water) and control of the rotation speed (up to 4,500 revolutions/minute). It sells for \$6,000 - \$8,000. WRITE: Patrick J. Clelland, President, Patrick John Clelland, Inc., Dept. CN, 449 Lombard Street, Rochester, New York 14606 U.S.A.



**LUBRICANT FOR UNDERGROUND CABLES** — "Polywater" is a non-toxic, non-allergenic, biodegradable lubricant for underground telephone and power cables. Said to have the lowest friction coefficient offered by any cable lubricant, the product can be used with all types of cables and conduits since it will not damage cable sheaths even after a very lengthy exposure. "Polywater" lubricants wash off hands, clothes, and cables with water or damp rags. The basic price is \$22/ 5 gal (19 l). WRITE: Mr. Paige P. Norling, President, Marketing Services International, Dept. CN, 4110 Nancy Place, St. Paul, Minnesota 55112 U.S.A.



## COMPUTERS AND PERIPHERALS

**CLEANING PRODUCT FOR VIDEO DISPLAY TERMINALS** — This new cleaning product was especially formulated to remove fingerprints, smudges, dust, smoke particles, and other impurities from video display screens. Recommended for word processing, microfilm, and computer-linked terminals, "Clean Screen" includes an anti-static ingredient and special dyes which reduce reflected glare. The non-aerosol spray produces a fine mist with ammonia for high cleaning efficiency. The product is sold for \$2 - \$3. End-users include banks, hospitals, libraries, etc. WRITE: Mitchell Morris, President, Clean Screen Products, Inc., Dept. CN, 24 North Wabash, Suite 823, Chicago, Illinois 60602 U.S.A.



**MAGNETIC RECORDING HEAD WITH NINE-CHANNELS** — This 9-channel recording head is designed to record and/or read at a rate of 6,400 bits per inch (252 bits per millimeter), and is suggested for manufacturers of digital cartridge magnetic tape memories. The manufacturer notes that this is a higher capacity than that of conventional recording heads (which feature two or four channels) although the product functions within the normal operating range of current digital cartridge tape drives (30 in, or 76.2 cm, per second). It sells for \$55. Agents are sought. WRITE: Donald S. Elderson, Vice President, Apollo Magnetics Corp., Dept. CN, 1320 West 9th Street, Los Angeles, California 90015 U.S.A.



MICROCOMPUTERS FOR BUSINESSES, HOBBYISTS — Both the small business and the serious hobbyist will be interested in the "Chieftain Microcomputers," compact systems housed in attractive leather-grained cabinets. Two models are available: the "Chieftain I" features two 5.25 in (13.3 cm) miniature floppy disk drives, the "Chieftain II" provides two 8 in (20 cm) drives. A 32 K (32,768 bytes) static memory, two serial input/output ports, a 2 MHz processor board, and other items are standard on both units. These expandable systems are priced from \$3,000 to \$5,000. WRITE: Ed Martin, Director of Marketing, Smoke Signal Broadcasting, Dept. CN, 31336 Via Colinas, Westlake Village, California 91361 U.S.A.

MICROCOMPUTER IN A BRIEFCASE

— This portable, self-contained microcomputer is used for on-site data collection by paramedics, accountants, oceanographers, engineers, and many others. Battery operated, the unit has a built-in battery charger and an auxillary battery system which allows data to be stored for as long as one year in a stand-by mode. The computer, engineered for a 12-bit word size, offers one kilobyte each (expandable in increments of the same size) of random access memory, programmable read-only memory, and monitor read-only memory. The price range is \$1,000 - \$5,000. WRITE: Wayne May, Vice President, Adaptive Systems, Inc., Dept. CN, 904 Southwest 2nd Place, Pompano Beach, Florida 33060 U.S.A.





LOW-COST MICROCOMPUTER SYSTEM — This firm states that its advanced design concepts and high density packaging have produced the "DD-800 Microcomputer," a system priced from \$3,000 that produces a higher work volume than comparable minicomputers. The special instruction set and input/output system of the "DD-800" make it compatible with "Nova" software systems and related peripherals and controllers. Its features include: a single-board central processing unit (CPU) with up to 64 K (65,536 bytes) words of memory capacity; a 16-bit multiple accumulator design; and a memory cycle time of 800 nanoseconds. Distributors are desired. WRITE: Vincent G. Choffo, President, Galvidon International Corp., Dept. CN, P.O. Box 507, Andover, New Jersey 07821 U.S.A.



WORD PROCESSING MICROCOMPUTER SYSTEM — The "Autoscribe" product is described as an extremely versatile document-processor/text-editing system based on a microcomputer. Designed to facilitate the creation of legal documents from a collection of standard paragraphs, the system permits a document to be created, revised, reviewed, printed, copied, saved, deleted, and appended to another document, all through basic keyboard commands which an ordinary typist can learn within an hour. Nothing is printed until the document is in final form. It sells for \$7,995. WRITE: Prudence Pande, Export Manager, MicroAge International, Dept. CN, 1425 West 12th Place, Tempe, Arizona 85281 U.S.A. (Photo above)

## CONSUMER GOODS

SOFT DRINKS MADE AT HOME — A wide variety of popular U.S. soft drinks may be inexpensively produced in the home with the new "Insty Pop System." Using syrup concentrates and cold filtered water, it makes two quarts of carbonated beverage in about two minutes. Cost per quart ranges from \$.02 for soda water to \$.18 for popular "brand-name" syrups. The system includes a charged 5 lb (2.2 k) CO<sub>2</sub> tank (rechargeable), an activated charcoal water filter, tubing and coupling, five shatterproof (2 qt - 2.1 l) bottles, three valve caps, and five plastic caps. Agents are desired. The system retails for \$150. WRITE: George Van Doren, Insty Pop Company, Dept. CN, 7101 Oxford Street, Minneapolis, Minnesota 55426 U.S.A.



PHONOGRAPH PREAMPLIFIER DEVICE — The "Holman Preamplifier" provides an innovative, high-performance design and improved tone control based on new research concerning the sound factors that musically sensitive listeners actually hear. The system totally eliminates input-impedance interactions, the company explains, allowing the user to hear the true frequency response of the phonograph cartridge. These interactions are among the major causes of audible differences between otherwise good preamplifier units. The system offers many other quality features. It sells for \$500. Agents are desired. WRITE: Tomlinson Holman, Director of Engineering, Apt Corp., Dept. CN, Box 512, Cambridge, Massachusetts 02139 U.S.A.

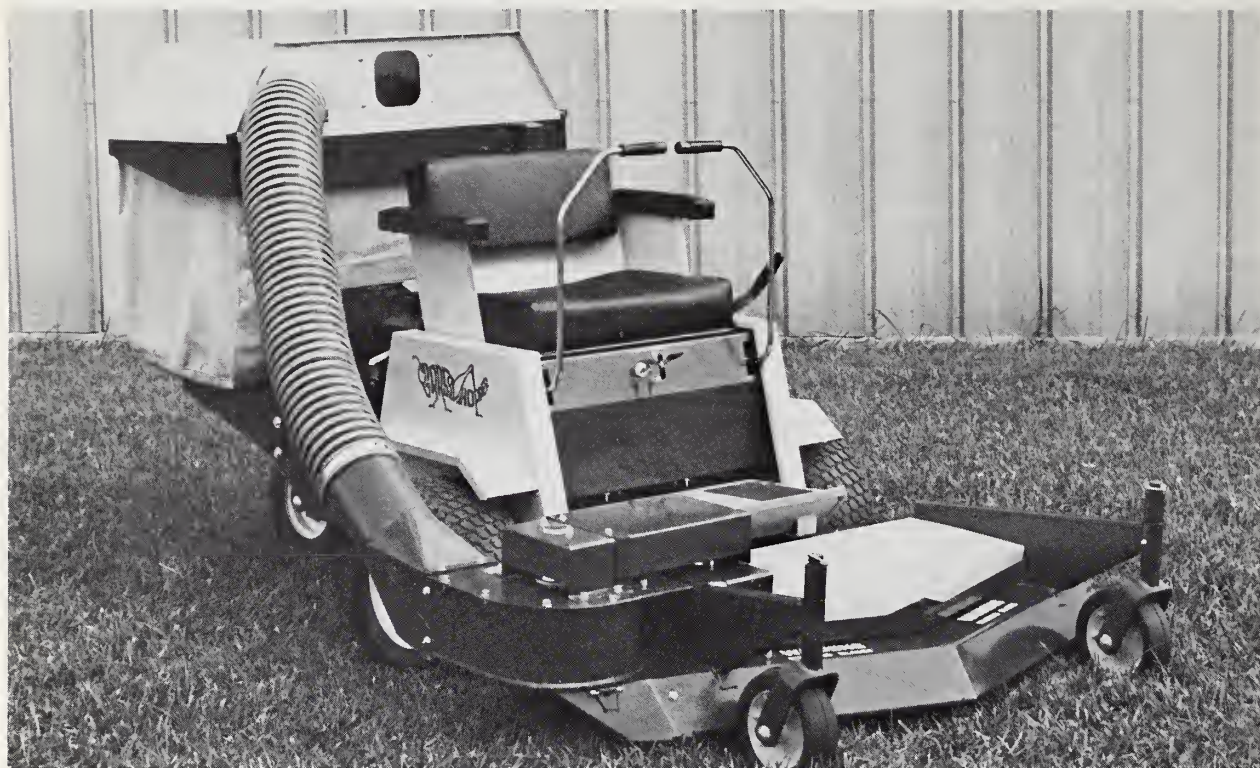
### FURNITURE FOR SUN BATHING

Ideal for use at the beach, or in the backyard, the "Beachster" is a sturdy sun lounge especially designed for sunbathing. It features a large oval opening, padded to support the user's face, which allows the person to recline comfortably face down while tanning. This prevents twisting of the neck, and helps to provide a more even body tan without overexposing the face. The frame of the lounge is made from welded aluminum, the plastic webbing is extruded (not woven). The price range is \$27 to \$32. Agents and distributors are desired. WRITE: J. A. Evans, President, Beachster Industries, Inc., Dept. CN, P.O. Box 1191, Anderson, South Carolina 29622 U.S.A.





**CONSUMER SERVICE INDUSTRIES**  
(Specialized Machinery and Equipment)



**COMMERCIAL LAWN MOWER WITH HYDROSTATIC DRIVE** — This firm seeks distributors and direct sales for a commercial quality grass cutter that is driven by a dual-drive hydraulic system. Featuring a "zero" turning radius, the "Morige Grasshopper" combines the maneuverability of small lawn mowers with the capacity of large commercial units. Its rotary cutting decks (as large as 1.6 m (5.3 ft)) can cut up to 65 acres (30 ha) daily, yet it is also able to handle close trimming in tight areas. Listed at \$2,750, the "Grasshopper" is suggested for municipalities, airports, golf courses, lawn care services, and others. WRITE: Adrian A. Walker, President, Associated Manufacturers International Corporation, Dept. CN, P.O. Box 600-373, North Miami Beach, Florida 33160 U.S.A.

**ENERGY: Solar**

**UNIT CONVERTS SOLAR ENERGY TO ELECTRICAL POWER** — Intended for use as a basic component in a photovoltaic power system, the "Sunverter" is a high-efficiency a.c./d.c. (alternating current/direct current) inverter that can be connected to standard electrical utility power. Various units range in size from 2 to 10 kVA capacity. A 10 kVA model can achieve efficiency rates in excess of 90 percent, according to the manufacturer. They sell from \$10,000 to \$15,000. WRITE: Peter Wicinski, Sales Manager, Abacus Controls, Inc., Dept. CN, 80 Readington Road, Somerville, New Jersey 08876 U.S.A.

**SOLAR-POWERED RADIO FOR CONSUMERS** — Attached to the "Solec Radio," the "Solec Photovoltaic Panel" can convert sunlight into electricity, powering the radio while simultaneously recharging the built-in battery for use indoors, at night, etc. Easy to operate and maintain, the radio is both economical and non-polluting in design. For powering the consumer's own radio or other small appliances, the company also manufactures 9-volt and 6-volt "charge boxes" which also operate on solar energy. These are finely packaged solar panels which include a rechargeable battery and a cord/multi-jack for attachment to appliances. Distributors are sought. WRITE: John S. Shahin, Executive Vice President, Solec International, Inc., Dept. CN, 12533 Chadron Avenue, Hawthorne, California 90250 U.S.A.

## **ENERGY: Electric and Other (Machinery & Equipment for Production and Distribution)**

**ENERGY MANAGEMENT/IRRIGATION CONTROL SYSTEM** — With applications in industrial, commercial, and agricultural areas, the "Ecotroller System" can regulate energy and/or water consumption, paying for itself within one year, this company says. Four modules are offered. The basic "Ecotroller" unit has 16 independently programmable channels that control electrical loads or other operations of a repeated bi-weekly schedule based on the actual time of day. Other modules are a "Load Leveler" that will cycle up to eight energy loads, a "Peak Power Demand Sensor" that activates load-leveling equipment when energy use exceeds preset limits, and an "Irrigation Sequencer" that regulates irrigation and sprinkler devices. The price is \$1,600-\$3,000. Agents, distributors are sought. WRITE: W.F. McDaniel, Vice President for Administration, Ecotronics, Inc., Dept. CN, 7745 East Redfield Road, Scottsdale, Arizona 85260 U.S.A.

**LEAD BLANKET FOR RADIATION PROTECTION** — Designed for use near nuclear power reactors, in radioisotope labs and in hospitals, this flexible blanket can be placed over radiation sources to provide shielding against radiation and gamma rays. A key feature listed by the manufacturer is the uniform distribution of the lead content which leaves no "thin" spots for radiation to penetrate. Equivalent to 6.35 mm of solid lead, the standard blanket measures .5 x 12.0 x 30.5 in (1.3 x 30 x 76 cm) and weighs about 37 lb (17 k). It sells for \$260. WRITE: Dean C. White, Export Manager, Reactor Experiments, Inc., Dept. CN, 963 Terminal Way, San Carlos, California 94070 U.S.A.

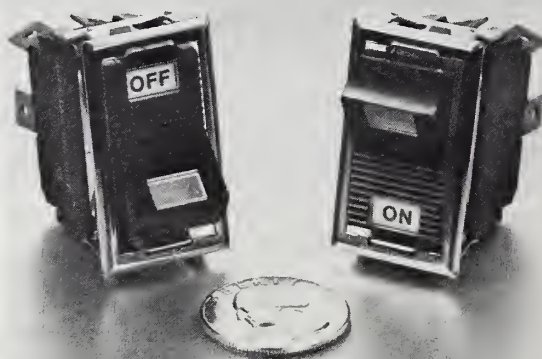




**EMERGENCY POWER GENERATOR** — This company offers an inexpensive and easy-to-use generator for supplying emergency household electricity during power failure. The firm notes that, unlike portable emergency generators, the "Homelite" unit can be prewired into the electrical system of a home or small store, providing immediate auxillary power at the push of a few buttons. Designed for permanent outdoor installation in its weatherproof compartment, the self-contained system includes a 5,000-watt generator, with a gasoline powered engine, starter motor, and a refillable fuel tank. The product sells for \$2,000 installed. WRITE: Frank B. Stevenson, Assistant to the Director for International Sales, Homelite, Division of Textron, Dept. CN, P.O. Box 7047, Charlotte, North Carolina 28217 U.S.A.

## ELECTRONIC COMPONENTS

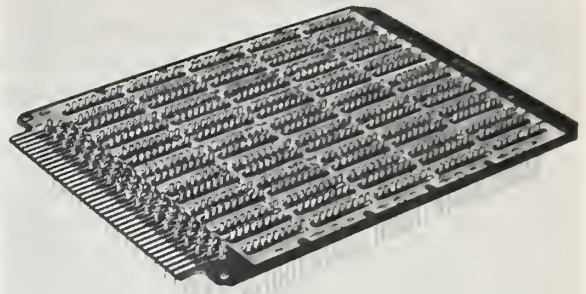
**ROCKER SWITCH WITH BUILT-IN ON/OFF INDICATOR** — The new "Rockette Switch" features integral written or colored indicators that clearly show whether the switch is in the "on" or "off" position. These indicators appear through transparent "windows" in the switch, assuring accurate monitoring of machinery functions. It can typically be used with electronic computing equipment, office machines, and electric measuring/testing devices. Available as either a smooth or serrated rocker switch, the manual switch comes in any of three colors, with one or two windows, and with a variety of mounting methods. It is priced from \$.76 to \$6.58. WRITE: Lawrence B. Benkert, International Marketing Manager, Speciality Products Group, Cutler-Hammer, Inc., Dept. CN, 4201 North 27th Street, Milwaukee, Wisconsin 53216 U.S.A.



**SWITCHING POWER SUPPLIES** — Manufacturers of printing terminals, CRT (cathode ray tube) terminals, word processors, small business computers, and microprocessor-based systems are the end-users of these switching power supplies featuring three to six regulated d.c. (direct current) outputs. The switchers convert 110 or 220 V (alternating current) input into multiple outputs with a total power capability of 25 - 400 watts. An open-frame construction provides maximum flexibility, the manufacturer says, and also keeps the units small and lightweight. The price range is \$80 - \$550. WRITE: Doug Lyons, International Sales Manager, Boschert Incorporated, Dept. CN, 384 Santa Trinita Avenue, Sunnyvale, California 94086 U.S.A.

#### DUAL-CONTACT PIN SOCKET FOR INTEGRATED CIRCUITS (IC) —

Designed to hold IC's for use in manufacturing computers and other scientific or industrial equipment, the "Dual Contact Pin Socket" provides 100 percent contact on two sides of the IC lead. Both "face wipe" interfaces (contacting the long sides of the lead) and "edge wipe" interfaces (contacting the short sides) are possible. The replaceable pins are secured firmly in the pin board by six locking barbs to prevent accidental removal. The design permits adding capacitors. This item sells from \$30. WRITE: Susan Mallane, Export Sales Administrator, Scanbe, Division of Zero Corp., Dept. CN, 3445 Fletcher Avenue, El Monte, California 91731 U.S.A.



PRECISION LAPPING MACHINE — Precisely flat, parallel surfaces on production parts with large diameters may be obtained in one operation with the "Series 3600 Planetary Lapping Machine." The manufacturer stresses that the unit is more versatile and precise than alternative systems, maintaining critical tolerances on components such as silicon wafers, mechanical seal seats, glass, steel, carbon, etc. The machine permits double sided lapping with variable pressures. It is recommended for manufacturers of electronic components, ceramics, glass and steel, pumps and valves, etc. It sells for \$69,825. WRITE: Harry W. Albee, General Manager, P.R. Hoffman Machine Products, Dept. CN, 321 Cherry Street, Carlisle, Pennsylvania 17013 U.S.A.

### **ELECTRONIC INDUSTRY PRODUCTION AND TEST EQUIPMENT**

#### STORAGE/SHIPPING SYSTEM FOR PRINTED CIRCUIT BOARDS —

The "Flat Box" is a container especially designed to protect printed circuit boards (PCB) or other similar electronic components during storage or shipping. Made from heavy-duty corrugated board with sturdy polystyrene sidewalls, the container can be folded flat when not in use to minimize storage costs. It is versatile, reusable, and available in a static-free material (if desired). The "Flat Box," custom-made for the size of the user's PCB, sells from \$5 to \$10. WRITE: Arthur B. Lazere, Export Marketing Consultant, Central Container Corp., Dept. CN, 4041 Hiawatha Avenue, Minneapolis, Minnesota 55406 U.S.A.





**QUALITY CONTROL OF MACHINE PARTS** — The "Air Glide Transfer Gage" examines squareness, flatness, parallelism, and tapers of electrical or machine parts with simplicity and reliability. Accurate to within 2 millionths of an inch (5 millionths of a cm), it can be used on stone surface plates, optically flat steel plates, and on scraped cast iron surface plates. Because it glides on a frictionless cushion of air, the instrument is not subject to sticking, sudden slips, or general wear from dirt. It sells for \$400. WRITE: Bert Lieb, Sales Manager, Anton Machine Works, Inc., Dept. CN, 1226 Flushing Avenue, Brooklyn, New York 11237 U.S.A.

**COMPONENT MARKING SYSTEM** — Designed for use in semiconductor, electrical, and plastic manufacturing facilities, this unit is capable of marking and conveying singulated components in stick form or lead frames. Sticks are marked, then cured by serpentine heaters or an ultra violet curing system. This machine can handle a 6-lead to 42-lead integrated circuit with only a slight adjustment. The marking unit easily produces 3,500 to 4,000 devices/hour. It sells for \$16,000. WRITE: R.E. Cole, Sales and Marketing, Kras Corporation, Dept. CN, 99 Newbold Road, Fairless Hills, Pennsylvania 19054 U.S.A.

**UNIT MEASURES FLATNESS OF PHOTOMASKS, SILICON WAFERS** —

As projection printers become more prevalent in producing integrated circuits, the surface flatness of silicon wafers and photomasks becomes more important. The "System 9000" provides quick, reliable measurement of flatness without touching the test item, displaying the results as a detailed two-dimensional contour map on a closed circuit television. Most photomask sizes can be accommodated as well as wafers of 2, 3, or 4 in (5, 7.6, 10 cm). Photographic records of test results can be produced. The price is \$20,000 to \$25,000. WRITE: Charles N. Teyssier, Manager of Marketing, Tropel, Inc, Dept. CN, 1000 Fairport Park, Fairport, New York 14450 U.S.A.



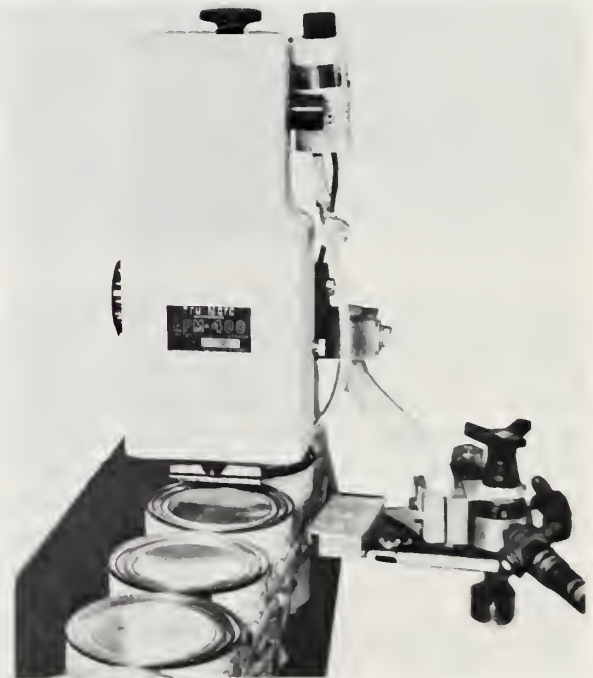
## **FOOD PROCESSING AND PACKAGING MACHINERY AND EQUIPMENT**

**DOUGH PUMP/KNEADER FOR BAKERY OPERATIONS** — A new system has been produced by this company which handles the final development of bread, bun, and roll dough prior to baking. Working together at a production rate of 15,000 lb (6,804 kg) per hour, the combination dough pump and dough kneader create a very uniform dough consistency and remove excess gas. A gentle, low-shear action is used, minimizing temperature increases and damage to the dough. The system sells for \$40,000. The pump can also be purchased without the refrigerant-jacketed kneader. WRITE: Andrea Smith, Sales Correspondent, Pak-It Manufacturing Co., Inc., Dept. CN, 5597 New Peachtree Road, Atlanta, Georgia 30341 U.S.A.



PRINTER/DISPENSER OF ADHESIVE LABELS — The "Label Maker LM-S" prints, dispenses, and automatically removes the backing sheets from ordinary pressure-sensitive labels, making them available for immediate use on all kinds of product lines. This can significantly speed production lines, the firm notes, while providing a simple, effective way to identify a manufacturer's products. The special design of the "Label Maker LM-S" makes it easy to change label imprints, and a wide variety of colored inks and paper stock is available. WRITE: Audrey Marsh King, Vice President, Marsh Stencil Machine Company, Dept. CN, 707 East "B" Street, Belleville, Illinois 62221 U.S.A.

VERSATILE PNEUMATIC MARKING DEVICE — Industries that require code marking of their products are the main end-users of the "Tru-Mark Pneumatic Marker." This product automatically imprints up to 200 containers or 400 units of paper stock per minute. The manufacturer stresses the unit's durability and notes that several kinds of actuation are available (micro-electric and photo-electric switches, actuation synchronized to the main production line, etc.) The cost is \$1,000 f.o.b. Gardena, CA. The firm seeks overseas agents. WRITE: Thomas J. Cipolla, President, Tru-Mark International Division of Atomco, Dept. CN, 1305 West 135th Street, Gardena, California 90247 U.S.A.



## GENERAL INDUSTRIAL MACHINERY AND EQUIPMENT

PRECISION CABLE DRIVE CHAINS — "Flex-E-Gear" drive chains are lightweight, miniature products typically used as components in spur gears, positive drive cam gears, rack and pinion gears, etc. The chains are made from strong stainless steel cables covered with a layer of polyurethane. The flexible chains offer silent, consistent operation without lubrication. Possible applications include use in high-speed printers, food processing machinery, conveyor drives, and many other devices. The chains are priced at \$1.50 - \$11.00. WRITE: Winfred M. Berg, President, Winfred M. Berg, Inc., Dept. CN, 499 Ocean Avenue, East Rockaway, New York 11518 U.S.A.



**LABOR-SAVING HEDGE TRIMMER** — Designed primarily for industrial and institutional use (universities, parks, municipal governments, landscape maintenance firms, etc.), the "Quick Cut" hedge trimmer is designed to speed trimming operation while reducing strain on the operator. Able to cut both the sides and tops of hedges on both smooth or rough terrain, the unit features easy operator control of blade height and angle during use. Available units are powered by a rechargeable automobile battery or gasoline engine. Price range is \$400 to \$800. WRITE: Dave Wilson, President, The D.J. Wilson Co., Inc., Dept. CN, 2707 Churchill Drive, Huntsville, Alabama 35801 U.S.A.



**PALLETLESS STRETCH-WRAPPING MACHINE** — This company is introducing a mechanical system that can stretch-wrap products without the use (or expense) of pallets. If the user wishes, however, provision can be made for later conversion of the system for use with pallets to meet shipping restrictions. The "Flarpak" product includes a fully or semi-automatic palletizer, slip sheet dispenser, conveyor system, stretch wrapper, and programmable controls. A special feature is the "Tensirol" which maintains correct tension on wrapping film regardless of the film roll diameter. These machines sell from \$6,000 to \$150,000. WRITE: L. H. Flaherty, President, Flarpak Corp., Dept. CN, 1575 Jefferson Avenue, Southeast, Grand Rapids, Michigan 49510 U.S.A.

**MACHINE PREPARES POLLUTANT SAMPLES FOR ANALYSIS** — The "GPC 1002 Autoprep" processes crude extracts of raw materials (sediments, plant tissues, animal fats, etc.), producing clean samples of pollutants, such as pesticide residues and drugs, which can be easily tested through gas chromatography. The machine is especially recommended to pesticide manufacturers, food processors, and other industrial users since it can automatically process up to 23 samples without the operator's attention. Possible applications include testing for non-ionic chlorinated pesticides, kepone, triazine, etc. The unit sells for \$12,500. WRITE: Ralph W. Waltz, President, Analytical Bio Chemistry Labs, Inc., Dept. CN, P.O. Box 1097, Columbia, Missouri 65205 U.S.A.





WATER TREATMENT FOR REMOVAL OF SCALE FORMATIONS — Designed to destroy existing scale formations and to prevent the formation of new scale, the "Aqua Scrubber" water treatment system neutralizes the ionic bonds of any scale-forming salts as they occur in the water. Applicable to boilers, heat exchangers, cooling towers, pipes, and many other units, the treatment combines a centrifugal action, ultrasonic sound, and an electric high-energy field to treat scale. There is no need to purchase, handle, or store expensive chemicals. The company also says that the "Aqua Scrubber" can help to reduce equipment "downtime," prolong equipment life, and reduce overall energy use. It sells from \$4,000 to \$30,000. WRITE: David Rabbitt, National Marketing Director, Sonic-Clean, Inc., Dept. CN, 4141 Veterans Boulevard, Suite 219, Metairie, Louisiana 70002 U.S.A.

CUPS/PACKING FOR HYDRAULIC, PNEUMATIC CYLINDERS — Made from very high-quality leather, "Red Devil Cups and Crimps" are recommended for use as components in hydraulic and pneumatic cylinders. Repair shops will also find them useful as replacement parts. The leather is specially treated by the manufacturer to assure the greatest possible strength and durability. Available sizes range from 19.05 mm through 558.80 mm. The price range is \$1-\$100. Agent and distributor inquiries are invited. WRITE: James M. Rhodes, Sales Manager, C.F. Adams, Inc., Dept. CN, P.O. Box 253, Fort Worth, Texas 76101 U.S.A.



ELECTRICAL PHASE CONVERTER — This is said to be the only small solid-state phase converter of such high reliability in this price range. Selling from \$95 to \$130, the "Miniphase II" converts single phase current (220 V/50-60 Hz) into three-phase electricity. It is recommended by the company for applications in which three-phase motors are required but three-phase current is unavailable — in machine, metal, and woodworking shops, on construction jobs, etc. Small and lightweight, the "Miniphase II" can be economically shipped worldwide. Agents and distributors are sought. WRITE: Neil A. Davidson, Export Manager, Overseas Operation, Inc., Dept. CN, P.O. Box 222-7000, Redondo Beach, California 90277 U.S.A.

INDUSTRIAL ROBOTS WITH EXPANDED CAPACITY — Greater memory and higher load-carrying ability are two of the listed features of these new "Versatran Industrial Robots." Advanced microprocessor circuitry, according to the company, makes these systems easier to program and provides substantially greater control capability. The robots are extremely flexible, moving along seven distinct axes (horizontal, vertical, swing, sweep, etc.) and their modular "plug-in" memory units allow the user to purchase only the memory capacity needed for specific applications. They can lift loads ranging from 400 to 2,000 lb (180-900 kg). Suggested for automotive manufacturers, the chemical and textile industries, etc., these items sell for \$35,000 - \$90,000. WRITE: John R. Essenberg, Director, International Marketing, Versatran, Dept. CN, 3001 Centreville Road, Herndon, Virginia 22070 U.S.A.



UNIVERSAL TESTING DEVICE FOR TENSION, COMPRESSION — Based on solid-state electronics, this firm's "UTSE" is a versatile, bench-type tester able to provide accurate measurements of both tension and compression in a wide variety of laboratory, quality-control, and production applications. Its easy-to-read digital display makes the unit ideally suited for repetitive tests of the tension or compression strength of wire, fabrics, plastics, springs, and metals. It can also measure crushing or piercing forces. Priced at \$3,750, it is available with combined English, Metric, and S.I. (International System of Units) readings up to 500 lb (225 kg) capacity. WRITE: Nathan Lavenda, Vice President Sales, John Chatillon & Sons, Inc., Dept. CN, 83-30 Kew Gardens Road, Kew Gardens, New York 11415 U.S.A.

FEEDBACK TRANSDUCERS FOR PRECISION POSITIONING — Used typically by builders of machine tools with numerical controls, control manufacturers, and others who need precise positioning systems, these transducers help regulate positioning operations by feeding information from a machine to the machine controls. The modular system will mount multiple components such as resolvers, tachometers, and encoders with a wide range of internal gear ratios (including metric conversions). Its unique "Micron-A-Just" gearing adjustment system eliminates the use of eccentrics and spring-loaded gearing. The price is \$100 - \$500. WRITE: Polet Moser, Vice President Sales, Micron Instrument Corp., Dept. CN, 210 Express St., Plainview, New York 11803 U.S.A.



MOLTEN METAL FILTRATION SYSTEM — Small and disposable, the "Selee" filter removes oxides and non-metallic particles of three microns or larger from molten metal. It is made from a continuous open-pore ceramic foam with volume fraction voids of 85 to 90 percent. Said to be the most efficient method ever devised for filtering molten metal, the "Selee" filter is recommended for primary producers, extruders, forgers, foundries, and casting/recycling operations. It sells for \$50 - \$100. WRITE: Mr. Seymour, Program Manager, Consolidated Aluminum Corp., Dept. CN, P.O. Box 14448, St. Louis, Missouri 63178 U.S.A.

BUCKET-TYPE CONVEYOR SYSTEM — The "Techniflow Bucket Conveyor" is a continuous conveyor chain carrying a series of bucket-shaped scoops that can transport chemicals, food products, fertilizer, or other product materials, both in a horizontal and a vertical direction. The conveyor's strength is provided by high-tensile steel cables that are completely encased in neoprene rubber to prevent contamination of the transported products or corrosion of the cables themselves. The chain also features molded rubber "teeth" that assure firm contact with roller-type drive pulleys. Operating quietly without lubrication, it sells from \$5,000 to \$100,000. Agents, licensees are sought. WRITE: Joseph E. Coleman, President, Techniflow Corporation, Dept. CN, 342 Madison Avenue, New York, New York 10017 U.S.A.

**MONITOR RECORDS PRODUCTION "DOWNTIME"** — The "DTR100 Series Downtime Recorder" offers full electronic monitoring of industrial machine performance, using a C/MOS (Complimentary Metal Oxide Semiconductor) memory to record any time out of production or occurrences of "downtime" events. Housed in a heavy-duty cabinet, the unit features a crystal-controlled time base for accuracy and a key lock switch for security. It is designed to withstand industrial noises that might otherwise cause false counts. Possible end-users include paper and steel mills, tool and die machining plants, and other producers. The recorder sells for \$640-\$1,290. **WRITE:** David C. Jennings, Products Manager/Sales Department, Niagara Scientific, Inc., Dept CN, 118 Boss Road, Syracuse, New York 13211 U.S.A.

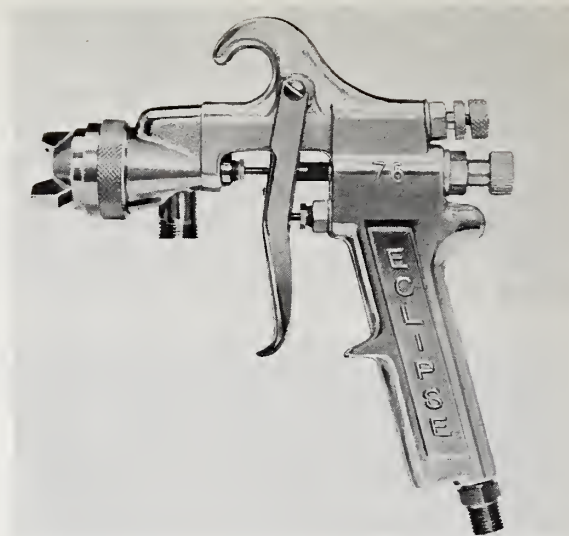
**ENERGY CONSERVATION SYSTEM FOR LARGE, SMALL BUILDINGS** — Simple to operate, the "MVI MicroEnergy System" is a small microprocessor that is said to reduce electrical power consumption and peak demand in buildings of all sizes, including industrial, institutional, and commercial structures. It features a special control device that adjusts the system's operation according to external and internal environmental factors, including the day of the week and time of day. Basic energy management functions include timed start-up and shut-down, duty cycling, and "leveling" of demand from electrical loads. The price range is \$18,000 - \$25,000. **WRITE:** W. David Marshall, Marketing Manager, Microcomputer Ventures Inc., Dept. CN, 3857 North High Street, Columbus, Ohio 43214 U.S.A.



**SELF-LOADING TRANSPORTER VEHICLE** — This carrier serves both as a forklift and short-range transport vehicle, carrying loads of up to 12,000 lb (5,443 kg). Since the forklift mast has a maximum capacity of 4,000 lb (1,814 kg), two pallets of this weight can be loaded on the vehicle's loading bed and a third carried on the forklift itself. Available with either an industrial gasoline or diesel engine, the carrier can attain speeds up to 30 mi/hr (48 km/hr) and features unobstructed visibility of the loading and moving areas. Engineered for outdoor work, they easily maneuver over rough or sandy terrain. End-users include ship yards, steel mills, fruit growers, etc. **WRITE:** Karl O. Koch, Export Manager, Multi-Pallet Fork Lifts, Inc., Dept. CN, 1201 Chestnut Street, Philadelphia, Pennsylvania 19107 U.S.A. (Photo above)

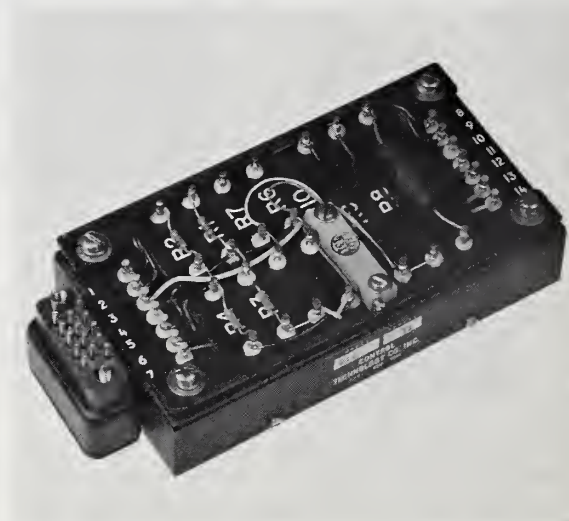


**GENERAL PURPOSE SPRAY GUN —** Priced at \$40-\$50, this versatile sprayer can be used with either pressure or siphon feed systems in a wide variety of industrial applications (from finishing fine products to heavier maintenance spraying). The construction of the "76 Spray Gun" includes a forged aluminum handle and a forged, detachable head and spray nozzle. The company notes that the gun's spray pattern can be adjusted from 1 inch (2.54 cm) in diameter to a fan over 2 feet (.6 m) long. WRITE: Arthur Brukardt, President, Eclipse Systems, Inc., Dept. CN, P.O. Box E, Franklin, New Jersey 07416 U.S.A.



**NON-CONTACT TEMPERATURE MEASUREMENT SYSTEM —** The "Monitemp 3200" is a self-contained, non-contact sensor for monitoring and controlling temperatures of 125 - 2,000 degrees F (50 - 1,100 degrees C). It is simply mounted and aimed at the surface to be measured, then wired for power and output signal. This signal, based on the measured temperatures, can be used to drive an analog or digital meter, recorder, and/or controller. Applications include coating, curing, drying, extruding, and milling operations in paper and textile mills, plastics plants, refineries, etc. Special null-balancing circuitry simplifies the unit's operation and guarantees long-term monitoring stability. The cost is \$1,200. WRITE: C.F. Langenhagen, Jr., President, Williamson Corp., Dept. CN, 1152 Main Street, Concord, Massachusetts 01742 U.S.A.

**POWER AMPLIFIER UNIT FOR D.C. ELECTRICITY —** Intended for use in d.c. (direct current) control systems, the highly versatile "Model 916 D.C. Power Amplifier" is extremely compact, measuring only 4.70 x 2.75 x .94 in (119 x 70 x 24 mm) in size. With its power sharing circuitry, the amplifier is able to deliver up to 110 watts of output power. Other features listed by the manufacturer are differential input and output, an adjustable current limiting function, and a removable component board mounted on top of the amplifier. It sells for \$300. Agent inquiries are welcome. WRITE: H. Cooper, Sales Manager, Control Technology, Co., Inc., Dept. CN, 41-16 29th Street, Long Island City, New York 11101 U.S.A.



**BRUSHLESS FREQUENCY CONVERTERS** — This company introduces an innovative frequency converter redesigned without brushes, slip rings, or commutators. Two models are offered. Converters in the 50-60 Hz frequency range are available with ratings from 500 VA to 25 kVA, with both one and three-phase outputs. They provide 60 Hz power for testing 60-cycle equipment. Converters in the 50-400 Hz range are rated from 150 VA to 12.5 kVA, with one and three-phase outputs. They can provide high-frequency power for electronic equipment, research and testing, servicing of aircraft and missile electrical equipment, etc. Units sell from \$1,000 to \$7,000. WRITE: C.E. Trefzger, Director of Marketing and Sales, Georator Corp., Dept. CN, 9617 Center Street, Manassas, Virginia 22110 U.S.A.

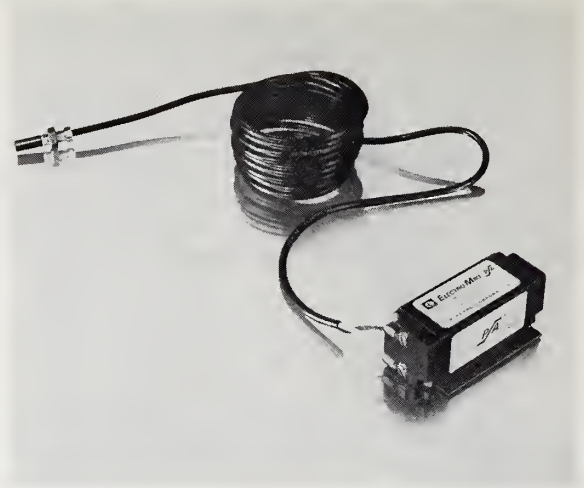
**EQUIPMENT FOR POLYSTYRENE PACKAGING** — The "Safety-Pak" machine is suggested for industrial, commercial, or retail businesses that use expanded polystyrene packages to protect products during storage and shipping. The unit uses hot-wire machining to carve out precise, predetermined cavities in blocks of polystyrene which can hold nearly any kind of product normally shipped in this kind of package. Changing the design of the cavity costs less than \$1, the company notes, and requires less than 10 minutes of preparation. Intended for low and medium-volume production, the "Safety-Pak" is priced from \$6,000 to \$8,400. Master displaying distributors worldwide are sought. WRITE: James Nazarens, President, Safety Packaging Machinery Inc., Dept. CN, 3030 Bertwynn Drive, Dayton, Ohio 45439 U.S.A.



**SPRING RETURN ACTUATOR FEATURES EFFICIENCY, SMALL SIZE** — The "Matryx Cam Spring Return Actuator" utilizes a cam drive which provides a simple, direct means of producing torque (turning or twisting force). Because of this unique cam mechanism, the actuator is very compact (according to the company, about one-fifth the size of other spring return actuators with equal capacity), yet it provides a constant torque output during operation. Made from extremely hard materials and precision machined for a long operating life, the actuators are priced from \$500 to \$2,000. Torque requirements of specific valves (or other rotary devices) can be met. End-users include the hydrocarbon, petro-chemical, and power industries. WRITE: Brian Raymond, Sales Administrator, Matryx Co., Division of Xomox Corp., Dept. CN, 11500 Rockfield Court, Cincinnati, Ohio 45241 U.S.A.



NON-CONTACT GAUGING SYSTEM FOR INDUSTRIAL USERS — The "Electro-Mike" is an electronic gauging system that can be used in a variety of on-line, off-line, and quality control applications to measure metal, plywood, cardboard, and other sheet materials. A high-speed system that easily adapts to production lines, the "Electro-Mike" gauges automatically without contacting the material being measured. It can be safely used, therefore, even with fragile, easily damaged products. The system consists of a proximity sensor and a linear converter that together sell for \$150. The firm seeks distributors outside of Western Europe markets. WRITE: G. E. Gee, Vice President of Distributor Markets, Electro Corp., Dept. CN, P.O. Box 3049, Sarasota, Florida 33578 U.S.A.



## HEALTHCARE INDUSTRIES

CONSOLE UNIT FOR INTENSIVE NEONATAL CARE — Available in both free-standing and wall-mounted models, these neonatal intensive care consoles adapt efficiently to any hospital area used for the care of newborn babies. Free-standing units handle a maximum of four incubators, but modules can also be equipped (according to hospital needs) to accommodate any number of incubators. Included are isolated or non-isolated electrical systems, clocks, timing devices, and storage space for linens, dressings, and instrumentation. Outlets for oxygen and compressed air can also be provided. The consoles are said to meet high standards of quality construction. WRITE: T.P. D'Amour, Manager of Government Engineer Services, Square D Company, Dept. CN, 8555 16th Street, Suite 409, Silver Spring, Maryland 20910 U.S.A.

LEG BAG FOR URINARY INCONTINENCE — The "Urocare Leg Bag" is designed to provide comfort and cleanliness to paraplegics, quadraplegics, persons with spinal cord injuries, and others who have difficulty controlling their urinary functions. Its most important feature is a unique one-way flutter valve that prevents urine from accidentally flowing backwards out of the seamless latex bag. The bag itself prevents odors and has large openings for easy cleaning. In addition, the flutter valve can be removed for inspection, cleaning, or replacement, and an improved drain valve is provided to keep the user's hands dry during operation. The price is \$10.40 f.o.b. South El Monte, California. Agents are wanted. WRITE: Donald E. Willis, Vice-President for Marketing, Urocare Products, Inc., Dept. CN, 10031 East Rush Street, South El Monte, California 91733 U.S.A.

HERBAL TREATMENT FOR HEMORRHOIDAL TISSUES — This firm has developed a new medicine, made entirely from natural herbal ingredients, which is recommended for the treatment of hemorrhoidal tissues. Described as a rediscovery of "Collinsonia," a remedy used by physicians in the last century, "Hydra-Col" tends to strengthen blood vessels, thus offering relief from painful hemorrhoids and also from varicose veins. The manufacturer says the product is safe to use during pregnancy (when hemorrhoids are common) and that it can also help to relieve constipation when used with dietary changes. Available both as a salve and in tablet form, it retails for \$10. WRITE: Joseph R. Strachan, President, Hem-Low International, Ltd., Dept. CN, 2626 West Main Street, Alhambra, California 91801 U.S.A.



SECURITY SYSTEM FOR X-RAY DARKROOMS — Designed to prevent exposure and destruction of unexposed x-ray film and of exposed but unprocessed radiographs, the "Lok-A-Bin" system connects film storage bins, white lights, and access doors, so that doors are automatically locked and white lights disabled if any film storage bin is opened. The bins also lock automatically if any door is opened or a white light turned on. A special feature is the "Processor Interlock" which prevents exposure of radiographs during crucial points in their processing. Offered to hospitals and clinics with x-ray facilities, the system sells from \$700. Agents are sought. WRITE: Dudley E. Gaylord, Marketing Director, Lok-A-Bin Systems, Inc., Dept. CN, 1208 Southeast 7th Avenue, Portland, Oregon 97214 U.S.A. (Photo above)

MINIATURIZED PACEMAKER — Up-to-date electronic circuitry makes possible the extreme miniaturization and lightweight construction of the "E-lith" pacemakers (Models DU-15 and DU-19). Because these products use only one integrated circuit and severely reduce the number of complementary components, they are said to be the safest, most comfortable, and most cosmetically attractive pacemaker implants available. They also provide high reliability and an extremely long service life — perhaps their most important feature. The cost is \$1,000. Agent inquiries are welcome. WRITE: Jack Kantor, President, K & D Corporation, Dept. CN, 1495 North Harbor City Boulevard, Suite F, Melbourne, Florida 32935 U.S.A.



**VERSATILE ARM SLING/SHOULDER IMMOBILIZER** — Made from machine washable cotton and polyester, the "Freedom Sling" is available in four sizes (small children through large adults) that will fit either the left or right arm or shoulder. This unique design makes it unnecessary for doctors or hospitals to maintain supplies of eight kinds of slings and four kinds of shoulder immobilizers. Supporting both the patient's hand and arm, its versatile strap system and elastic absorbers reduce harmful pressure, thus preventing decubitus ulcers (bed sores). The straps are easily adjusted or removed for eating, exercise, etc. The price is \$10. Agents are sought. **WRITE:** Glenn L. Wall, General Manager, Biddle & Crowther Company, Dept. CN, 910 North 137th Street, Seattle, Washington 98133 U.S.A.



**COMPUTERIZED SYSTEM FOR EXAMINING VISUAL FIELDS** —

The computerized "Perimtron" provides an accurate, simplified way to examine a patient's visual field, an important step in detecting and monitoring ocular and cerebral conditions such as glaucoma, brain tumors, and retinal/choroidal lesions. Simple to use, the system is designed for operation by unskilled technicians, and it features high standards of accuracy and repeatability. It operates according to the most effective manual perimetric techniques available, and its unique light projection system and computer enable it to test any point within the visual field. The cost is \$40,000. End-users are ophthalmologists, optometrists, and neurologists. **WRITE:** Eduardo Arias, Manager of Intercontinental Operations, Coherent, Inc, Dept. CN, 3210 Porter Drive, Palo Alto, California 94304 U.S.A. Telex: 34-8304

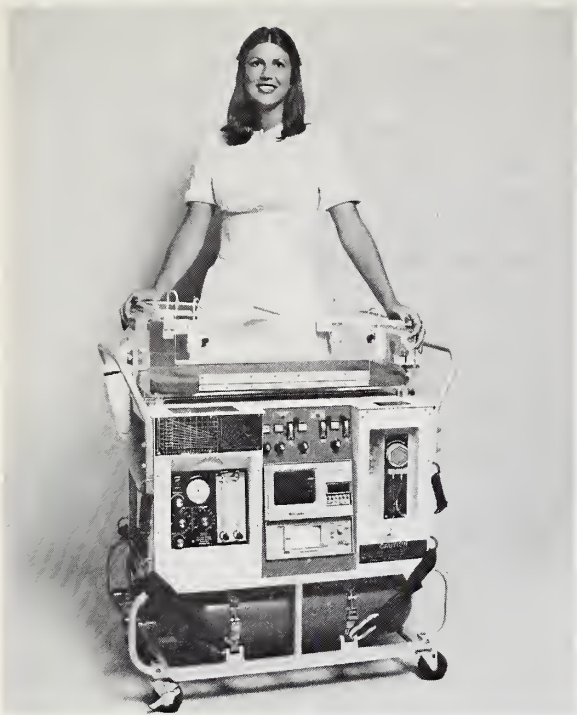
HIGH-QUALITY PILLOWS FOR MEDICAL USERS — These new pillows were designed to meet standard requirements of U.S. hospitals, clinics, nursing homes, mental and physical health institutions, hotels, motels, etc. The pillows are flame-resistant, anti-bacterial, self-deodorizing products that are available in full size or smaller "air-line" size versions. Very comfortable and easy to prop, they are filled with resilient polyester and come with woven or nonwoven fabric covers. Both washable and disposable types are offered. The price range is \$.55-\$3.35. Agents, distributors wanted. WRITE: Edward Halpern, Marketing Director, Chicago Association for Retarded Citizens, Dept. CN, 343 South Dearborn Street, Chicago, Illinois 60604 U.S.A.

RADIO HEADSETS FOR EMERGENCY MEDICAL PERSONNEL — "EMS Headsets," specifically designed for emergency medical systems, can keep a paramedic in constant contact with the base hospital without taking his or her hands away from life-saving tasks (cardiopulmonary resuscitation, etc.) This feature makes the headsets ideal for use by ambulance personnel, fire and police departments, hospital emergency teams, and others. Though the product's design does not hamper communication with the patient or others on the scene, it allows private reception of messages, thus lowering the chance of alarming the patient. Various models adapt to ambulance or portable radio systems. They sell for \$86-\$112. WRITE: Robert Linn, Marketing Manager, Setcom Corp., Dept. CN, 1400 Stierlin Road, Mountain View, California 94043 U.S.A.



PORTABLE MEDICAL X-RAY DEVICE — The "GX-101" is described by its manufacturer as the smallest x-ray unit produced in the United States which can produce radiographs able to meet the high standards of hospital requirements. Weighing only 65 lb (27 kg), the unit occupies minimum storage space and can be easily maneuvered in crowded hospital or field conditions. It is a high-power system rated at 100 kVp, 30 mA, with full-wave solid-state rectification and automatic computation of mAs settings. Ideal for hospitals, physicians, clinics, universities, or the military, this system sells from \$9,000. WRITE: Gerald J. Stussman, Vice President, General X-Ray Corp., Dept. CN, 368 Center Street, Southport, Connecticut 06490 U.S.A.

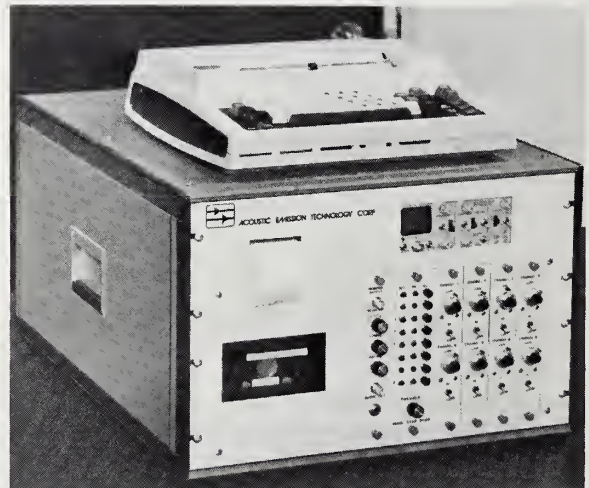




**TRANSPORTER/ INCUBATOR FOR NEONATAL CARE** — An advanced design is featured in this new transport system designed to facilitate comprehensive care of newborn "high-risk" infants during transportation. Extremely portable, the "Neonatal Life Support/Transport System" weighs only 190 lb (87 kg), yet it gives the infant a very carefully controlled environment with heated, humidified, filtered air enriched with oxygen (O<sub>2</sub>). Integral features of the transporter include a monitor system (for heart rate, electrocardiogram, respiration, blood pressure or pulse, two temperatures, etc.), a recorder unit (waveforms, digital information, elapsed time), and a respirator. It sells for \$20,000. The main end-users are hospitals and emergency medical facilities. WRITE: Richard E. Piazza, Ph.D., Pres., Airborne Life Support Systems, Inc., Dept. CN, P.O. Box 11129, Reno, Nevada 89510 U.S.A.

## LABORATORY AND SCIENTIFIC INSTRUMENTS

**AN INNOVATIVE COMPUTER-BASED ACOUSTIC EMISSION SYSTEM** — This is said to be the first acoustic emission system to use a microcomputer for general purposes such as testing materials for structural integrity, determining the effects of structural flaws, etc. The "Pioneer 500" can be gradually expanded from a basic two-channel system (for moderate budgets) to the complete eight-channel system with full capabilities. Data can be organized in a variety of ways (counts, distributions, parametric rates, etc.) using multiparameter real-time data processing. Typical end-users are universities, research laboratories, and various industry groups (automotive, aerospace, civil engineering, etc.) The modular system sells from \$6,000 to \$12,000. WRITE: Allen T. Green, General Manager, Acoustic Emission Technology Corp., Dept. CN, 1828A Tribute Road, Sacramento, California 95815 U.S.A.



NEW UNIT MEASURES PORE STRUCTURE OF PLASTICS, RESINS, ETC. — The redesigned "Mercury Intrusion Porosimeter" can simultaneously measure the pore structure and properties of plastics, resins, and other materials, saving substantial amounts of operator time and labor. It measures such properties as pore volume, pore size distribution, surface area, absolute particle density, and complexity of pores, with increased accuracy and resolution, according to the firm. Units sell from \$5,000 to \$30,000. Agent, distributor inquiries are welcome. WRITE: Dr. Krishna Gupta, President, Porous Materials, Dept. CN, F-24, Lansing West, Ithaca, New York 14850 U.S.A.

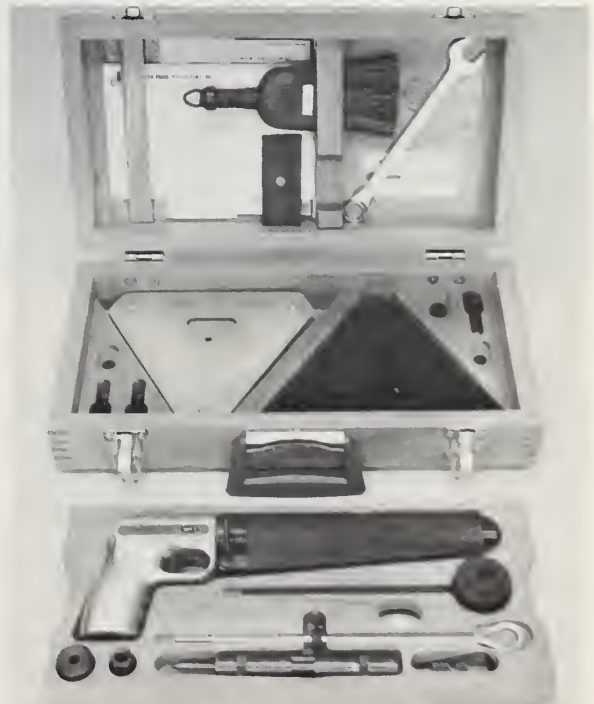
DISTANCE CALCULATING DEVICE —

The "Terrameter" measures distances of up to 15 km (9 mi) with a precision greater than 1 part in 10 million. By simultaneously measuring the optical path length at two wavelengths (red and blue), the target distance can be readily determined without the meteorological observations and corrections required with conventional equipment. A built-in computer compares the optical measurements, and corrects for weather effects, then calculates the distance. The price is \$202,000. WRITE: David Slotnick, Director of Operations, Terra Technology Corp., Dept. CN, 3860 148th Avenue, N.E., Redmond, Washington 98052 U.S.A.



NEW CONCRETE TEST SYSTEM —

The "Windsor Probe" is a ballistic test system which applies continuous force to drive steel probes into plain or reinforced portland cement concrete. The concrete's resistance is measured then checked against a special chart which gives the compressive strength. Non-destructive, this method is said to be more accurate and less expensive than "impact hammer" and "drilled core" methods of testing in-place concrete. Users include material test laboratories, building contractors, concrete manufacturers, and many others. WRITE: Mr. William Cutlip, Concrete Services Equipment Specialist, Densicon, Inc., International Trading Co., Dept. CN, 4720 Warner Road, Cleveland, Ohio 44125 U.S.A. Telex: 810-421-8293 KELLEY CLV





## LAND TRANSPORTATION EQUIPMENT

**DISPOSABLE TEMPERATURE RECORDER** — Applicable to all kinds of transportation (truck, rail, air, or sea) that use refrigerated or frozen containers, the "DTR" (Disposable Temperature Recorder) is discarded after one use, unlike conventional recorders that must be returned to the manufacturer for reloading after each use. It is also said to cost less than shipping and reloading reusable models. Available with settings of -23 to +32 degrees C (-10 to +90 degrees F), it will run for 7, 15, or 30 days, providing 2 percent accuracy on temperature readings and 5 percent accuracy on time. It sells for \$17.50. The firm seeks distributors actively involved in sales to the transportation industry. WRITE: R.A. Staples, President, Amtaico International, Dept. CN, 582 Market Street, Suite 1115, San Francisco, California 94104 U.S.A.



**SIDE RACKS, FOLDING BENCHES FOR PICKUP TRUCKS** — Made from durable hardwood and steel, this company's new side racks and folding bench seats are useful accessories for open-back pickup trucks of 6 to 8 ft (1.8 and 2.4 m). The racks offer additional side support for tall, bulky loads, while the folding seats are ideal for transporting groups of more than four persons. The seats can also be used as storage shelves, or folded and locked into an upright position for extra room. Areas of use include agriculture, the military, park services, etc. The units sell from \$125. Distributor inquiries are welcome. WRITE: Francis G. Tenbusch, General Manager, Stephan Wood Products, Inc., Dept. CN, P.O. Box 669, Grayling, Michigan 49738 U.S.A. (Photo above)



**HIGH-SPEED RAIL INSPECTION SYSTEM** — Railroads and government agencies which regulate them are the chief end-users of the "System 700 Rail Inspection System," a high-speed unit which uses high-frequency sound from 16 ultrasonic transducers to detect cracks and flaws in railroad rails. The company states that the system's advanced electronic memory, microprocessor, and display devices streamline operation and permit inspection speeds in excess of 40 km (24 mi)/hour. The "System 700" can be installed on either "Hy-Rail" or fixed rail vehicles, and the firm offers a "Hy-Rail" vehicle as an option to users. The price of the system (with vehicle) is \$170,000. Distributors are sought. WRITE: R.G. Carlson, Project Manager, Electra-Physics Laboratories, Inc., Dept. CN, 715 Sutter Street, Fulsom, California 95630 U.S.A.

## MARINE AND RELATED EQUIPMENT

### **ELECTROFISHING EQUIPMENT** —

Designed for the study and collection of fish by marine biologists and fisheries, "Electroshockers" generate a controlled electrical shock in the water which stuns any fish in its immediate area, allowing the operator to catch them without difficulty. According to the manufacturer, fish may be thus tagged, studied, or removed, usually without harm. Electrofishing units of various sizes (from portable units to specially designed boats) are available for research and commercial facilities. The manufacturer states that the equipment is especially designed for safe operation. Distributor and agent inquiries are welcome. The price ranges from \$1,000 to 10,000. WRITE: Joseph D. Coffelt, President, Coffelt Electronics Co., Inc., Dept. CN, 2019 West Union Avenue, Englewood, Colorado 80110 U.S.A.



## METALWORKING AND FINISHING

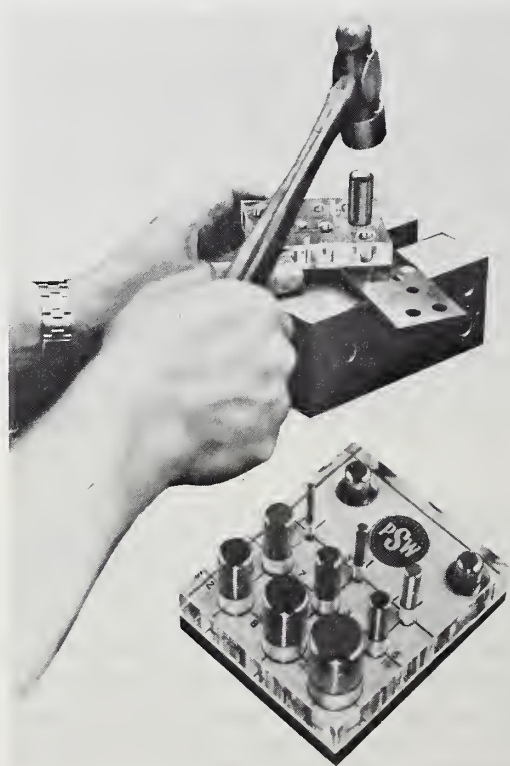
**CONCENTRATED LUBRICANT FOR METAL-DRAWING PROCESSES** — "Lubri-Flo 1000-Q" is a fortified concentrate used as a lubricant in pressworking (stamping and drawing procedures) involving steel, stainless steel, and aluminum. It can be used as a concentrate for difficult jobs, the firm notes, or diluted with water for less demanding jobs or work that requires dissipation of processing heat. Water-soluble, the product is easily removed in low-temperature cleaning baths or processes. Listed ingredients include an "anti-weld" chemical and an extreme pressure lubricant that firmly bonds to tool and workpiece surfaces. The price is 55¢/lb (.45 kg) or \$4.40/gal (3.8 l). WRITE: Bruce E. Larson, Sales Manager, Larson Chemical Specialties, Dept. CN, 245 West Maple Street, Milwaukee, Wisconsin 53204 U.S.A.



**HIGH-PRESSURE GRINDER FOR METAL WORKING** — Using coated abrasive belts to grind metallic materials and products, the "Model RBX" high-pressure grinder can typically remove 3 cu in (49 cu cm) of aluminum or 1.2 cu in (19.6 cu cm) of cast iron each second. Operation is kept at a relatively low temperature since most of the heat is carried away by dust and other matter removed in grinding. The unit's T-slot table can easily and effectively secure parts, usually requiring only a mechanical clamp or other simple fixture. Thus the operator's work is limited to set-up, adjustments, loading, and unloading. Precision grinding is assured by the rigidity of the grinder's components. The price starts at \$70,000. WRITE: Dale Connor, Assistant Sales Manager, Divine Brothers Corp., Dept. CN, 200 Seward Avenue, Utica, New York 13503 U.S.A.

**NON-BAKING SYSTEM FOR MAKING CORES, MOLDS** — Foundries are the chief end-users of the "Blo-Set" coremaking equipment, which forms industrial cores and molds from sand and a resin binding (phenolic isocyanate). Intended to replace common types of coremaking (cold box, hot box, shell, and oil-sand methods) and of molding (shell and small green sand methods), the system's main advantages are that it eliminates the use of natural gas (for heating) and noxious catalytic gases (for curing). The maximum core box size is 508 x 762 mm (20 x 30.5 in), and the maximum core weight is approximately 45 kg (100 lb.) WRITE: H. R. Goss, Vice President of Sales, Shalco Systems, Division of Acme-Cleveland Corp., Dept. CN, 12819 Coit Road, Cleveland, Ohio 44108 U.S.A.

**PUNCH AND DIE SET FOR WORKING THIN METAL** — Recommended for use by machine, maintenance, and tool shops, the "Shim Stock Punch and Die Set" enables the user to punch holes of 1/8 to 3/4 inch diameters (3.175 - 19.050 mm) in thin metals and other materials. Fast and accurate, it produces clean holes free from burrs, and the case-hardened punches can safely cut rubber, plastic, brass, even stainless steel. The set requires only a hammer and flat surface. The transparent Plexiglas top helps the user to guide his actions, punching materials precisely where desired. The set is suggested for making gaskets, shims, washers, spacers, and other items. Distributors are sought. WRITE: Charles H. Smith, Jr., National Sales Manager, Precision Brand Products, Inc., Dept. CN, 2250 Curtiss Street, Downers Grove, Illinois 60515 U.S.A.



IMPROVED HIGH-SPEED DRILL — The "Koolcarb" high-speed drill is a two-flute device tipped with carbide and fed with a pressurized coolant. Providing initial penetration rates double those of conventional high-speed drills and four times those of gun drills, the "Koolcarb" can drill holes up to one (1) meter long (3.3 ft), and from 6 to 38 mm in diameter (.24 - 1.5 in), in steel, iron, aluminum, brass, or wood. The company says the unit provides extremely accurate and straight drilling, and that it requires no guide bushing if a self-centering grind or shallow lead hole is used. Agents and distributors are sought. It sells for \$60-\$250. WRITE: Charles J. Trost, President, CJT Industries, Inc., Dept. CN, 1550 West Fullerton, Addison, Illinois 60101 U.S.A.

SYSTEM FOR REGENERATING CHROMIC CHEMICALS — An electrodialysis system called the "Ecru System" is now available for regenerating chromic acid, a valuable substance used as an industrial oxidizing agent. This is a skid-mounted facility engineered to reoxidize the reduced chromium in solutions that contain pure chromic acids or mixtures (chromic-sulfuric acid, etc.) Applicable to plastic etches, aluminum deoxidizers and bright dips, anodizing solutions, and many other substances, the system can also prevent expensive waste treatment of chromic chemicals. End-users include brass and aluminum mills, plastic platers, auto manufacturers, pharmaceutical firms, etc. The system sells from \$40,000. WRITE: Joel P. Sheinheit, Sales Manager, A.M.J. Chemical, Inc., Dept. CN, 12 Potter Avenue, New Rochelle, New York 10801 U.S.A.

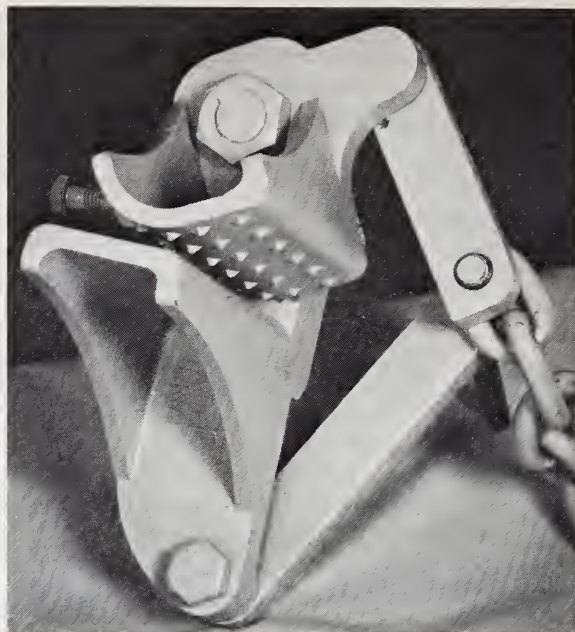
## MINING

UNIT MONITORS GROUNDING OF A.C. POWER EQUIPMENT — Designed for use in standard mining conditions, this new "GM-150 Ground Monitor" enhances personnel safety by ensuring that equipment using alternating electrical current is always properly grounded. This frequency-controlled solid-state system produces an electrical signal which travels along the phase line, returning to the monitor along the ground lines. Monitoring as many as five circuits, it activates circuit breakers whenever the continuity of any ground circuit is lost. The company says that voltage dips and intermittent conditions in the feeder cable will not affect the "GM-150." The price is \$500 per circuit. Agents and distributors are wanted. WRITE: Taylor Frazier, Marketing Manager, American Mine Research, Inc., Dept. CN, P.O. Box 1628 Bluefield, West Virginia 24751 U.S.A.





CLAMPING DEVICE FOR SPLICING CONVEYOR BELTS — This company states that its "Travis Quick Clamp" can reduce to only a few minutes the time needed to anchor conveyor belts for splicing. With applications in mining, manufacturing, and other processes that handle bulk materials, the clamp is lighter and faster to apply than conventional clamps. The cam action of the unit's scissor-type locking device activates the clamping jaws, while a short length of chain secures it to a ratchet jack or hoist for tying off the belt. This item sells for \$250-\$300. Agents are desired. WRITE: Jim Travis, General Manager, Travis Quick Clamp, Dept. CN, P.O. Box 3A, Beaver, West Virginia 25813 U.S.A.



## **PRINTING, GRAPHIC ARTS EQUIPMENT AND SUPPLIES**

HIGH-EFFICIENCY DRYER FOR INFRARED INKS — Designed to give commercial printers and other industrial users an effective way to dry infrared ink, the "Fostoria Ink Dryer" uses highly polished reflectors made from extruded aluminum. These reflectors feature "instant response" tungsten filament sources and air-cooled fins for extreme durability. The manufacturer notes that the tungsten sources have a long service life of up to 5,000 hours. Reducing or eliminating the use of drying powders, the dryer offers a high gloss finish, instantaneous surface drying of infrared inks, and an overall drying time of 1/2 hour or less. It is priced from \$10,000 to \$20,000. Agent inquiries are welcome. WRITE: Dan Callaghan, Export Manager, Fostoria Industries, Inc., Dept. CN, 1200 North Main Street, Fostoria, Ohio 44830 U.S.A.

## **PRODUCTION (Specialized Machinery and Equipment)**

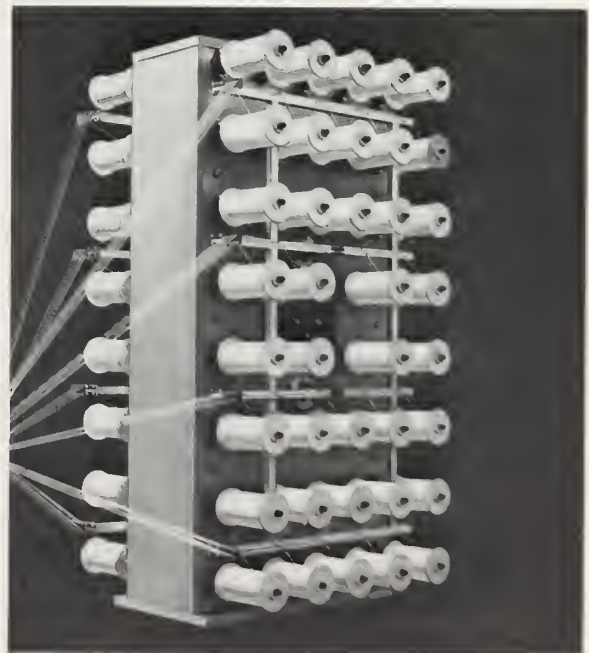
MOISTURE TESTER FOR TEXTILES — The "Forte Model 775 Moisture Content Tester" will instantly determine the percentage of moisture in an entire cone, spool, cop or other package of yarn. There is no heating or other effect on the material; thus, no waste is created. The "Forte 775" is applicable to all natural and synthetic fibers, including glass fiber. It will accept large cones such as those often used for carpet yarn. End-users are producers and processors of yarn, other fibers. The price is \$18,000. WRITE: Stanley Breen, President, Forte Technology, Inc., Dept. CN, 611 Neponset Street, Canton, Massachusetts 02021 U.S.A.

**GUIDE CONTROL FOR GRINDING GEMSTONES** — This product is a semi-automatic device which allows both professional and amateur gem cutters to grind a perfectly shaped crown and an even girdle on precious and semi-precious stones. Easy to use, even for beginners, the "Cab Crowner" is adaptable to most available grinding and polishing equipment. It controls the movement of the stone against the grinder, preventing strain on the cutter's hands and eyes, while assuring an accurate, predetermined cut. The "Cab Crowner" can be used to cut round, square, rectangular, and oval stones. Featuring a durable, all-metal construction, it sells for \$35. WRITE: E.E. Smith, General Manager, Geode Industries, Inc., Dept. CN, 106-108 West Main Street, New London, Iowa 52645 U.S.A.



**SELF-LUBRICATING GLASS CUTTING TOOL** — The "Supercutter" is a precision glass cutting tool with a self-lubricating cutting wheel able to cut some 10,000 meters (6 mi) of hardened glass before being replaced. Each time the wheel is compressed, a drop of kerosene lubricant is fed from a reservoir (in the tool's handle) to the wheel. Two interchangeable heads - one for straight cuts and another for delicate patterns - are offered. Both are long-lasting cutting wheels with a hardness approaching that of diamond. The "Supercutter," sold from \$7.44-\$18.00, is recommended for both professional and amateur glass cutters. WRITE: Jack Shupper, Vice President, Glass Accessories International, Dept. CN, 10112 Beverly Drive, Huntington Beach, California 92646 U.S.A.

**IN-LINE WINDING MACHINE FOR TEXTILE INDUSTRIES** — Completely compatible with any coating, extruding, laminating, drawing, or rewinding process, the "Multi-Spindle Take-Up" is ideal for manufacturing yarn, thread, monofilaments, rope, twine, fine wire, etc. A compact, variable-speed system, it features an individually adjustable tension control and latched thrust bearing on each of its Teflon coated spindles. The three standard sizes respectively offer 40, 76, and 120 spindles. Models can also be custom-made for the user's specific applications. The basic price is \$15,000. Agents are sought. WRITE: Bruce L. Butler, Vice President, Independent Machine Company, Dept. CN, 120 Second Avenue, Paterson, New Jersey 07514 U.S.A.





HIGH-STRENGTH PLASTIC FOR RECREATIONAL PRODUCTS — Manufacturers of hockey sticks, snow skis, archery bows, boats, and other recreational products are the main end-users of these fiberglass-reinforced plastic materials. Said to be stronger, stiffer, and less expensive than epoxy laminates, the plastic is the thinnest material available which offers this degree of strength. Structural characteristics are especially adapted to recreational products; its tensil modulus is  $7 \times 10$  and its flexural modulus is  $9 \times 10$ . Agents and distributors are sought abroad. WRITE: John S. Miller, Sales - Engineering, J. Miller Industries, Dept. CN, 3338 West Castor Street, Santa Ana, California 92704 U.S.A.

NEW PRODUCTION PROCESS FOR INSULATION PANELS — This is a newly developed process line for manufacturing insulation panels with cores of urethane, cyanurate, or phenolic foam. The "Process Tunnel" combines rapid heat transfer and accurately ground die plates for a production method that is faster than, and superior in quality to double-belt processes. In addition, the company notes, panel surfaces are produced unmarred by belt marks and their thickness is extremely uniform. Besides being safer and simpler to operate than many standard production processes, the "Process Tunnel" requires less floor space. It sells for \$100,000-\$1,000,000. WRITE: Charles Tabler, Vice President of Marketing, Kornylak Corp., Dept. CN, 400 Heaton Street, Hamilton, Ohio 45011 U.S.A

ELECTRONIC STRIPING DEVICE FOR KNITTING MACHINES — By using this "Selective Electronic Striper (SES)," operators of knitting machines can electronically control yarn changes which produce horizontal stripes on socks and other apparel. Designed to replace mechanical cam-and-lever controls, the unit can change striping patterns in seconds, rather than hours, and it operates without stopping production. The "SES" consists of a small programmer and a solid-state receiving unit designed to activate solenoids, yarn fingers, etc. on the knitting machine. Priced at \$1,500, the system adapts to single-cylinder hosiery machines, circular ribbers, single-knit and double-knit jersey machines, etc. WRITE: Morris Speizman, Chairman of the Board, Speizman Industries, Inc., Dept. CN, 508 West Fifth Street, Charlotte, North Carolina 28202 U.S.A.



## RESTAURANT, HOTEL AND CATERING EQUIPMENT



**HIGH-VOLUME BARBECUE/COOKER COMBINATION** — The "Big Bash Barbecue" and the "Porta-Booya" are ideal for outdoor preparation of food for large groups of people. The barbecue uses charcoal to roast up to 68 kg (150 lb) of meat on a rotating spit and has adjustable grates for cooking additional steaks. The cooker uses propane to heat stews or for deep frying in large pots of various sizes. Made from aluminum, these portable units are recommended for caterers, rental stores, hotels, clubs, etc. They sell for \$435 each f.o.b. Wyoming, Minnesota. Agent and distributor inquiries are invited. WRITE: M.P. Dickey, President, Big Bash, Inc., Dept. CN, P.O. Box 37, Wyoming, Minnesota 55092 U.S.A.

**VERSATILE ELECTRIC BROILER** — "Chark-El Master Chef," for use by restaurants, fast food operations, hotels, etc., features two independent electric broiling units. The top unit uses controlled flameless heat to give food a charcoal-broiled flavor, aroma, and appearance. It has six independently heated, self-cleaning sections and a removable griddle plate. The bottom section uses infrared heating to toast, broil, and brown foods. The unit sells for \$3,162. WRITE: James Fitzpatrick, National Accounts Director, Connolly Roll-A-Grill Corp., Dept. CN, 12 First Street, Pelham, New York 10803 U.S.A.





## SAFETY AND SECURITY EQUIPMENT

**PRETIMED CONTROL UNIT FOR TRAFFIC LIGHTS** — Used at roadway intersections to regulate vehicle and pedestrian traffic, the "SF-300 Pretimed Traffic Signal Controller" is a solid-state unit that monitors and coordinates "Walk" lights, traffic lights, and similar electric signal equipment. It is a complete system incorporating a programmable controller, flasher, load switches, and other features, including a special monitor which prevents conflicting traffic signals. The system's modular design simplifies assembly and maintenance. End-users are government agencies involved in traffic control. The price is \$1,200. WRITE: Clyde McMorrow, Owner, McMorrow Engineering Group, Dept. CN, 2555 Park Boulevard, Palo Alto, California 94306 U.S.A.

**SECURING SYSTEM FOR WORKERS ON LADDERS** — The "TS Fall Prevention Device" is used by both new and experienced climbers to minimize the risk of falling from ladders on fixed installations such as communication towers, water tanks, silos, smoke stacks, etc. It consists of a safety rail, which attaches quickly and securely to the ladder, a safety belt for the worker, and an interlocking trolley. The trolley is designed to move freely up or down the ladder with the worker, but it locks instantly in place if the worker suddenly falls because of unexpected illness, fatigue, weather conditions, or other causes. The system sells for \$20/meter (1.1 yd). Distributors and agents are sought. WRITE: D.E. Wolf, Export Sales, T S Products, Inc., Dept. CN, 1311 East Main Street, St. Charles, Illinois 60174 U.S.A.



**STORAGE VEST FOR AMMUNITION, TACTICAL EQUIPMENT** — The "QRV Tactical Load Bearing Vest" gives police, security guards, military personnel, and others an efficient, convenient way to carry quantities of ammunition and other equipment. Distributing weight across the entire torso, the vest enhances the wearer's comfort and makes it easier to carry heavy loads for long periods of time. It features eight interchangeable pouches that will support any combination of weapons. Using side clips, the wearer can also attach containers for carrying additional equipment. The vest sells from \$100 to \$150. The firm seeks overseas dealers. WRITE: Gary Belson, President, Individual Load Bearing Systems, Inc., Dept. CN, 833 Route 37 West, Toms River, New Jersey 08753 U.S.A.

PNEUMATIC SILENCER FOR INDUSTRIAL EQUIPMENT — Made from tough, high-density polyethylene, these pneumatic silencer devices screw into the exhaust ports of air valves, allowing expanding air to escape at greatly reduced noise levels. This can protect a worker's hearing, the firm points out, and also improve the immediate work environment. Although the silencers can withstand internal pressures up to 200 lb/sq in (14 kg/sq cm), their physical properties prevent them from shattering or exploding into dangerous fragments in the event that they do fail. Adaptable to any equipment which discharges air, the products sell from \$.80 to \$7.00 for various sizes. WRITE: E.R. Martinson, Project Manager, Glasrock Products, Inc., Dept. CN, 7380 Bohannon Road, Fairburn, Georgia 30213 U.S.A.

ELECTRONIC VEHICLE DETECTION SYSTEM — Similar in operation to an ordinary compass, the "Sensortometer" detects the presence of an automobile, truck, or other vehicle by monitoring changes in the Earth's magnetic field caused by the vehicle's mass. The manufacturer says this unique system has no moving parts, unlike units that detect wheel pressure or vehicle weight, and it maintains an operational accuracy of 99.8 percent or better. Simple to install, the "Sensortometer" has applications in parking lots, car washing facilities, drive-in theaters, and other operations which require an exact count of vehicle traffic. The cost is \$977. Distributors are sought. WRITE: Eric Houseman, President, Sudri, Inc., Dept. CN, 125 West 4th Street, Suite 406, Los Angeles, California 90013 U.S.A.

HEAVY-DUTY ELECTROMAGNETIC LOCK — Consuming less power than an ordinary flash light (1/4 amp of power at 12 volts direct current), the "Model 3900 Electromagnetic Lock" exerts 1,500 lb (675 kg) of magnetic holding force to secure a door against intruders from either side. The unique mounting design of the lock permits rapid installation in new or existing buildings and it will automatically compensate for normal door wear, sag, warpage, or misalignment. Ideal for use in banks, hospitals, prisons, museums, etc., it includes a compact aluminum housing and fully concealed mounting. Four operating voltages are available. WRITE: Ralph Sittnick, President, Security Engineering, Inc., Dept. CN, P.O. Box 337, Bristol, Connecticut 06010 U.S.A.





TELEVISION TRANSMITTER FOR SECURITY SURVEILLANCE — This product is a compact, highly portable video transmitter which can transmit pictures for reception by standard television receivers. Adaptable to most TV cameras, the unit has a crystal-controlled frequency range of 225-915 MHz and works on an input voltage of approximately 28V direct current. Its weight is only 1 lb (.45 kg). Suggested for military, educational, and law enforcement groups, the transmitter sells for \$1,000-\$2,000. WRITE: Robert Brown, President, Professional Resources, Inc., Dept. CN, 315 South Main, Suite #1, Broken Arrow, Oklahoma 74012 U.S.A.

INTRUDER DETECTION SYSTEM —

The "UCU-40 Ultrasonic Detection System," a self-monitoring device, was engineered for schools, industrial facilities, and other buildings that need a highly dependable security system. Any unauthorized tampering with the equipment or accidental failure of the cable or transducers automatically activates an alarm. L.E.D. (light-emitting diode) indicators indicate the precise nature of maintenance problems, and plug-in printed circuit boards can be simply removed and replaced for easy repairs. A dual-control unit and auxillary power supply are included. The price is \$500. Distributors are wanted. WRITE: Flyn L. Penoyer, Marketing Manager, Atronic Inc., Dept. CN, 2065 Martin Avenue, #101, Santa Clara, California 95050 U.S.A.



SYSTEM CONTROLS PERSONNEL ACCESS TO RESTRICTED AREAS — This product is able to combine various kinds of sensors, intrusion detection devices, and access control equipment into one computerized security system. Its most innovative feature is a card-reader system (using coded plastic cards) that grants or denies entry of personnel to restricted areas. The system can also be expanded to include intruder and fire detection functions, a closed-circuit television interface, and other security features. Suggested for nuclear power plants, museums, military installations, and other sites, it sells from \$25,000. WRITE: George Stossell, Staff Associate, Sygnatron Protection Systems, Inc., Dept. CN, 2103 Greenspring Drive, Timonium, Maryland 21093 U.S.A.

IMPROVED HOSE SYSTEM FOR FIRE FIGHTING — Municipal, industrial, and volunteer fire departments will be interested in a new hose system designed to provide water more quickly at the scene of a fire. The system consists of lightweight hoses with very large diameters and the necessary related valves. Each of these larger hoses is able to replace several smaller hoses, the firm notes, thus making more efficient use of personnel and fire-fighting equipment in situations where these factors are crucial. The manufacturer is interested in obtaining agent contacts abroad. WRITE: H.E. Harrington, Vice President, Snap-Tite, Inc., Dept. CN, 201 Titusville Road, Union City, Pennsylvania 16438 U.S.A.

#### MANAGEMENT SYSTEM FOR BUSINESS FACILITIES —

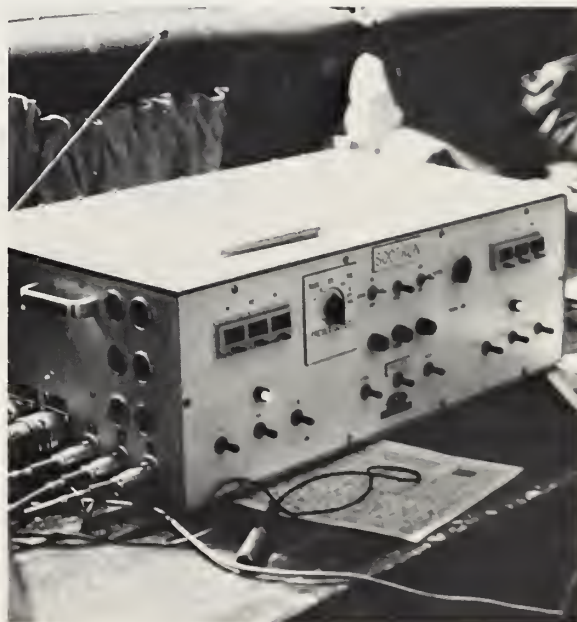
The "Alarm-Matic System 4000" is an automated management system for business and industrial facilities. Composed of a central computer and various remote data-gathering stations, it creates a link between all building and equipment alarms and monitors their status, automatically keeping records of all significant events. The system provides remote control of equipment, monitors building entrances, locks and unlocks doors, tracks intruders, detects fires, and performs many other important functions. The unit can also serve as an efficient energy-management system. It is priced from \$25,000. **WRITE:** Jack Shelton, Assistant Vice President / Marketing, Communication Mfg. Co., Dept. CN, P.O. Box 2708, Long Beach, California 90801 U.S.A.



### **SPORTS, RECREATION AND HOBBIES**

#### ELECTRONIC SCORING SYSTEM FOR SPORTS —

"Soctron" is an electronic system for scoring boxing matches and other sports events. Recommended to sports promoters and government agencies which regulate sports events, it includes an advanced computer console, scoreboard display panels, timing modules, and cabling harnesses. Enclosures for scoring officials, a complete scorer training program, and sports promotion guidelines are also included. Used for professional events or as a training aid, "Soctron" instantly displays the current score, even giving the number of blows made by either boxer. It sells for \$50,000. The firm seeks sports promoters, distributors, etc. **WRITE:** Ed Sweeny, President, E.S.E., Inc., Dept. CN, 3215 Superior Ave., Cleveland, Ohio 44114 U.S.A.





# U.S. GOVERNMENT SPONSORED EVENTS OVERSEAS

## CALENDAR

*Further information on the events listed below may be obtained by contacting the U.S. Embassy located in the host country. If in the United States, please contact the nearest U.S. Department of Commerce District Office. These offices are located in most major cities throughout the United States. The listed events/dates are subject to change or cancellation without prior notice.*

<u>DATE</u>	<u>LOCATION</u>	<u>EVENT</u>
1979		
September 5-8	TOKYO	INFO-ASIA: Information Processing Equipment
September 10-14	TAIPEI	Plant Operations Equipment: Security, Materials Handling and Maintenance
September 11-15	CARACAS	Medical Equipment
September 12-20	BRNO	Laboratory Instruments
September 17-21	MUNICH	SYSTEMS '79: EDP
September 17-21	SAO PAULO	Energy Systems
September 25-28	PARIS	Housewares
October 4-13	BUCHAREST	TECHNOEXPO: Quality Control Instrumentation
October 10-17	DUSSELDORF	KUNSTOFFE: Plastics and Rubber Production Equipment
October 15-19	UTRECHT	SECURITY '79: Industrial and Commercial Security Equipment
October 22-28	BARCELONA	SONIMAG: Electronic Components/Electronic Production and Test Equipment
November 5-9	SEOUL	Mining and Construction Equipment
November 5-9	SINGAPORE	PRINTPAC: Printing and Packaging Equipment
November 5-9	TOKYO	Rehabilitation Equipment
November 6-10	MUNICH	PRODUCTRONICA: Electronics Industry Production and Test Equipment

November 6-9	MEXICO CITY	Computer Equipment
December 3-7	SAO PAULO	Printing and Graphic Arts Equipment
December 10-15	PARIS	MESUCORA: Measurement, Control, Regulation and Automation Equipment
December 3-7	TAIPEI	Machine Tool Accessories
1980		
January 8-12	CARACAS	Safety and Security Equipment
January 20-26	JIDDA	Building and Construction Equipment
January 21-26	TAIPEI	Computers and Related Equipment
Jan. 29-Feb. 2	MEXICO CITY	PETROVANCE: Petroleum Industry
February 18-22	TOKYO	Automotive Maintenance Equipment
February 19-23	MEXICO CITY	Mining and Construction Equipment
February 24-27	MUNICH	ISPO '80: Sports and Recreation Equipment
February 25-29	SAO PAULO	Metal Finishing and Surface Treatment Equipment
February 26-29	MILAN	EDP '80: Computers and Related Equipment

#### SPECIALIZED TRADE AND SEMINAR MISSIONS

1979		
October	INDIA (4 stops)	Mining and Materials Handling Equipment
October	JORDAN/OMAN/UAE	Telecommunications Equipment
October	VENEZUELA/DOMINICAN REPUBLIC/ECUADOR	Educational Materials
October	INDONESIA/ PHILIPPINES	Timber Processing Equipment
November	NIGERIA/GABON/ CAMEROON/IVORY COAST	Agricultural-Industrial Chemicals



November	COLOMBIA/ECUADOR/ CHILE	Medical Equipment
November	COSTA RICA/ GUATEMALA/VENEZUELA	Aircraft and Ground Support Equipment
December	BAHRAIN/QATAR/ KUWAIT/UAE	Franchise Operations
December	SAUDI ARABIA	Avionics Equipment
1980		
January	BOLIVIA/PERU/CHILE	Mining Equipment
January	INDONESIA/THAILAND	Food Processing and Packaging Equipment
February	PAKISTAN/INDIA	Railway Equipment
February	CAMEROON/GABON/ LIBERIA/CONGO	Timber Industries Equipment
February	IRAQ/EGYPT/ALGERIA	Electronic Data Processing

#### VIDEO/CATALOG EXHIBITIONS

November 26- December 7, 1979	KOREA/THAILAND/ PHILIPPINES/INDONESIA	"Textile Machinery USA"
December 1979- January 1980	BOLIVIA/URUGUAY/ PARAGUAY/HONDURAS/ PANAMA	"Food Processing and Packaging USA"
January 1980	ALGERIA/EGYPT/ SYRIA/IRAQ	"Machine Tools USA"

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U.S. TRADE PROMOTION  
FACILITIES ABROAD

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# CURRENT DEVELOPMENTS IN U.S. TECHNOLOGY

COLD WATER DROWNINGS NOT ALWAYS FATAL — Persons who have drowned in cold water can often be revived, even after prolonged submersion, according to Dr. Martin Nemiroff, a researcher for the University of Michigan. Working under a U.S. government grant, Dr. Nemiroff has been able to show that a life-saving reflex common in marine animals also occurs in humans immersed in cold water. The body automatically shuts off the flow of oxygen to all but the most vital body parts — the brain, heart, and lungs. In such cases, prolonged resuscitation can often be successful in restoring apparently dead individuals to consciousness.

Of 22 cases (personally supervised by Dr. Nemiroff) of persons who had been submerged longer than five minutes in water colder than 70 degrees F (21 degrees C), 17 victims recovered fully without permanent physical injury, despite the fact that all the victims showed normal signs of death — no pulse, no breathing, dilated pupils, etc. In one case, a college student, underwater for 38 minutes, was successfully revived and went on to achieve an overall collegiate average of A-minus. Only 3 victims failed entirely to respond to resuscitation efforts.

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SAFETY IN THE PLAYGROUND — The severity of head injuries suffered by children who fall from slides, swings, and other playground equipment can be significantly lessened in many cases by the kind of ground cover used on the playground. A study by the National Bureau of Standards shows that loose materials such as sand, shredded tires, or shredded tree bark are the safest materials for use under playground equipment. However, even though such materials performed better than solid materials such as rubber mats or synthetic turf, they require regular maintenance since play activities of children (running, jumping, etc.) tend to scatter loose ground covering and lower the level of protection. Use of the correct kinds of ground covering, the study concludes, can help prevent injuries ranging from minor scalp bruises to skull fractures, concussions, and death.

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MARINE LIFE SURVIVES ARCTIC WINTERS — U.S. scientists, probing through nearly total darkness and -35 degrees F (-37 degrees C) temperatures under the Arctic ice pack, have discovered that many forms of marine life seem to thrive in the harsh conditions of the winter months, contrary to established scientific beliefs. A study of the Arctic ecosystem, conducted by the National Oceanic and Atmospheric Administration in preparation for off-shore oil and gas development, shows that many species, far from retreating from the hazards of the winter, seem to grow, reproduce, and seek out food under the most difficult conditions. Marine biologists had previously thought that the advent of the winter months meant a virtual standstill for all life forms under the ice.

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NEW RESEARCH MAY INCREASE EEL EXPORTS — Efforts to make commercial farming of eels economically feasible will be undertaken by the North Carolina Sea Grant College Program with the assistance of a grant from the U.S. Department of Commerce. The newly-funded research will concentrate on developing nutritional requirements for cultured eels, studying the distribution and movements of young eels in North Carolina's coastal rivers, and pursuing other objectives aimed at increasing the overall fishing harvest. Research of this kind, already under way in seven states, has significantly increased the quantity of eels shipped to foreign markets in recent years.

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CLOUD SEEDING: NEW TESTS ON WEATHER CONTROL TECHNIQUES — Does cloud seeding produce more total rainfall, or does it only increase rain from the seeded cloud by decreasing it in nearby cloud formations? Experiments this summer in southern Florida may provide the answer to this and other questions, according to a spokesman for the National Oceanic and Atmospheric Administration (NOAA). Earlier tests strongly suggest that seeding techniques can increase overall rainfall in an area by as much as 20 percent. If correct, this means that such techniques actually increase the total amount of rainfall rather than merely redistribute rainfall from the wider surrounding area. Using seeding on a random basis to avoid bias in the subsequent interpretation of results, NOAA hopes to provide final confirmation or rejection of these findings with the conclusion of testing in the summer of 1980.

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ARE POLLUTION-CONTROL DEVICES CREATING POLLUTION? — Some sophisticated pollution-control devices used primarily on coal-fired power plants may actually create a kind of "electrical" pollution while eliminating the fly ash and other visible pollutants they are designed to handle. Called electrostatic precipitators, these units create large quantities of highly charged particles that elude conventional pollution-control equipment. According to the National Oceanic and Atmospheric Administration (NOAA), which recently released a study on this phenomenon, the 10,000 precipitators now in use worldwide may be producing a total electric charge equal to that of forty simultaneous thunderstorms. This estimate — a figure equal to three percent of the atmospheric charge generated by global thunderstorms — may have significant effects on weather processes involved in the production of rain. NOAA also points out that, although little is known about the influence of high electric fields on plant and animal life, it would be surprising if this "invisible thunderstorm" did not have noticeable effects on living organisms as well.

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LONG-TERM EFFECTS OF RADIO WAVES, OTHER RADIATION STUDIED — The Federal Government's research on the effects of non-ionizing electromagnetic radiation on living organisms is summarized in a report by the National Telecommunications and Information Administration (NTIA). Non-ionizing types of radiation, such as radio waves, do not disrupt the molecular structure of living cells, unlike x-rays and other ionizing radiation. The main purpose of the government's research was to determine the effects on living organisms of long-term exposure to radio-frequency radiation at low power levels. The results of the program may help to insure a safe, appropriate use of radio waves and other kinds of radiation in the future.



## COMMERCIAL NEWSBRIEFS

TRYING TO OUTPACE TORNADOES: A FATAL MISTAKE — Noting that at least 25 deaths during recent tornadoes in Texas occurred when people in automobiles tried to outrun the storms, the National Oceanic and Atmospheric Administration warns that trying to flee from a tornado — even in a car — is almost always a mistake. Unless the driver is on open terrain where ground features make it possible to drive in any direction at high speeds, it is unlikely that a car will win in a life-or-death race with the storm. The best advice is to leave the car and take shelter in a well-constructed building, or in a ditch, culvert, or other low spot, if there any evidence that a tornado is approaching.

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EXPORTS OF LAWN/GARDEN EQUIPMENT SET RECORD HIGHS — U.S. foreign trade in lawn and garden equipment rose to a new high of \$128 million during 1978 -- an increase of 14 percent over 1977 — according to Commerce Department figures. Exports rose 12 percent to \$123 million and accounted for 96 percent of the total trade. At the same time, American imports were much lower, equaling only \$4.6 million. As a result the United States' trade surplus for these products reached a record level of \$119 million. It is significant that the United States has registered a surplus in its foreign trade in this sector every year since 1967.

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U.S. EXPENDITURES FOR LEISURE ACTIVITIES ON THE RISE — In 1977, Americans spent \$81.2 billion on leisure activities — some \$20 billion more than in 1974. This expenditure, representing 7 percent of the total outlays for personal consumption, covered payments ranging from those for movie and sporting events admissions to the purchase of toys and sports equipment. However, the figures do not include transportation and lodging costs connected with leisure activities. Outdoor activities, such as tennis, boating, camping, and skiing were found to represent an especially large part of the expanded expenditure.

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AUDIO/VIDEO IMPORTS STABILIZE AT \$955 MILLION — During the first quarter of this year, imports of electronic audio/video products (phonographs, radio equipment, tape players, televisions, etc.) amounted to \$955 million, a level comparable to first-quarter figures last year. Imports from Japan totaled \$490 million, a 12.4 percent drop from last year's figures. At the same time, however, imports from Korea reached \$104 million, a gain of 82 percent over the \$57 million posted last year.

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FOREIGN TRAVEL SPENDING REACHES NEW HIGH IN 1978 — U.S. travellers abroad and foreign visitors to the United States spent record amounts in 1978, according to Commerce's Bureau of Economic Analysis. U.S. travellers, for instance, spent \$8.5 billion in foreign countries (a \$1 billion increase from 1977) and paid \$2.9 billion to foreign carriers for transoceanic passenger fares (a \$0.2 billion increase). During the same period, foreign visitors to this country spent \$7.3 billion (a \$1.1 billion increase) and paid \$1.2 billion (a \$0.2 billion increase). The increases in spending by both groups were the largest in five years.

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JANUARY/MARCH COLOR TV IMPORTS DOWN SHARPLY — Imports of color televisions during January-March 1979 totaled 422,000 units, a 23.5 percent decline from the 552,000 units received during the same months last year. Statistics compiled by the Commerce Department show that this first-quarter count was the lowest total reported in the last eight calendar quarters. Korea was the only major foreign supplier to register a gain of units exported to the United States. Imports from Japan dropped 59.6 percent, and Taiwan and Canada also posted declines.

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MULTINATIONAL CORPORATIONS ACCEPT VOLUNTARY CONDUCT CODE — The world's multinational corporations are making increased use of the voluntary "code of conduct" adopted by the Organization for Economic Cooperation and Development (OECD) in June 1976. The guidelines of the code establish norms for company activity relating to policy issues such as disclosure of information, competition, financing of operations, taxation, employment and industrial relations, and science and technology. The OECD believes, however, that an increased and continuing effort is still needed to bring the code's standards to the attention of a greater number of multinational companies.

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FOREIGN INVESTMENT RISES IN U.S. PRINTING/PUBLISHING INDUSTRY — The declining value of the U.S. dollar and the resultant strengthening of other currencies have encouraged some foreign publishers to expand into the U.S. printing and publishing industry at bargain prices, according to an article released by Commerce's Industry and Trade Administration. Though overall foreign investment in this field is still low, foreign groups were involved in 59 investment transactions between 1974 and 1978, of which 45 were completed cases. Other factors which encouraged foreign investment included the traditional U.S. "open door" policy on foreign investment, U.S. managerial and marketing expertise, a skilled labor force, and well-developed capital markets.

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U.S. PATENTS REFLECT AMERICAN INVENTIVENESS — Technological innovations, historically an important source of the United States' economic strength, continued at a lively pace during 1978, according to Donald Banner, the U.S. Patents and Trademarks Commissioner. Of 70,150 patents issued in the United States last year, 44,150 went to American inventors. This was equivalent to one patent for every 4,939 persons in the entire population. The state of California, which originated the laser, the transistor, and many other inventions, led the rest of the country with a total of 6,009 patents.



\* TO THE EDITORS OF POST COMMERCIAL NEWSLETTERS \*

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# FOREIGN DIRECT INVESTMENT

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The Department of Commerce's Industry and Trade Administration (ITA) announced recently that foreign direct investment in the United States during 1978 showed an increase of 50 percent over 1977 in the number of completed transactions, and an increase of 73 percent in reported values.

Foreign direct investment is a term used to signify the direct or indirect ownership of at least 10 percent of the voting securities of an incorporated business enterprise or an equivalent interest in an unincorporated enterprise. ITA has developed a program to continuously monitor foreign direct investments in the United States.

In releasing preliminary data resulting from this program, ITA identified 645 completed transactions during 1978, as compared to 428 during 1977 and 198 in 1976. Of transactions last year which are considered completed, the 314 for which values are known totaled \$5.7 billion. Parallel figures for 1977 and 1976 were \$3.3 billion (representing 187 transactions) and \$2.1 billion (114 transactions).

Since detailed information was only available for 1977 and the first half of 1978, the ITA report concentrated mainly on the character of the transactions which occurred during 1977. For instance, the leading investors during that year were the United Kingdom, Japan, Canada, the Federal Republic of Germany, Switzerland, the Netherlands, and France. These seven countries accounted for 93 percent of the total reported value. Only eight completed transactions were identified as involving the Middle East oil-producing nations. Values, which were available in three of these cases, totaled \$24.7 million.

Manufacturing continued to be the leading sector for foreign investment in 1977, prominent subsectors being chemicals, metals, and machinery. The manufacturing sector accounted for 160 completed investments with reported values totaling \$1.4 billion. In addition, there were 89 investments (together valued at \$1.2 billion) in real estate and 68 banking investments.

The leading forms of investment activities that year were mergers, acquisitions, and equity increases. These constituted 156 completed transactions, representing 36 percent of the total for 1977.

ITA has published, in addition to summary data, listings of the transactions for 1977 and for the first half of 1978. Similar country and industry patterns of foreign direct investment continued in early 1978. ITA cautioned, however, that these figures are based on various public sources and are not comparable to data, developed by Commerce's Bureau of Economic Analysis from sample surveys, on balance of payments for foreign investment in the United States.





A000072778371

**Frank A. Weil, Assistant Secretary of Commerce for Industry and Trade, 377-2867**  
**Stanley J. Marcuss, Senior Deputy Assistant Secretary, 377-5491**

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**Los Angeles**, 90049, Rm. 800, 11777 San Vicente Blvd. (213) 824-7591.

**Memphis**, 38103, Room 710, 147 Jefferson Ave. (901) 521-3213.

**Miami**, 33130, Rm. 821, City National Bank Bldg., 25 W. Flagler St. (305) 350-5267.

**Milwaukee**, 53202, 605 Federal Office Bldg., 517 E. Wisconsin Ave. (414) 291-3473.

**Minneapolis**, 55401, 218 Federal Bldg., 110 S. 4th St. (612) 725-2133.

**New Orleans**, 70130, Room 432, International Trade Mart, 2 Canal St. (504) 589-6546.

**New York**, 10007, 37th Floor, Federal Office Bldg., 26 Federal Plaza, Foley Sq. (212) 264-0634.

**Newark**, 07102, Gateway Bldg. (4th floor) Market St. & Penn Plaza (201) 645-6214.

**Omaha**, 68102, 1815 Capitol Ave., Suite 703A (402) 221-3665.

**Philadelphia**, 19106, 9448 Federal Bldg., 600 Arch St. (215) 597-2850.

**Phoenix**, 85073, 2950 Valley Bank Center, 201 N. Central Ave. (602) 261-3285.

**Pittsburgh**, 15222, 2002 Fed. Bldg., 1000 Liberty Ave. (412) 644-2850.

**Portland, Ore.**, 97204, Room 618, 1220 S.W. 3rd Ave. (503) 221-3001.

**Reno, Nev.**, 89503, 777 W. 2nd St., Room 120. (702) 784-5203.

**Richmond**, 23240, 8010 Federal Bldg., 400 N. 8th St. (804) 782-2246.

**St. Louis**, 63105, 120 S. Central Ave. (314) 425-3302.

**Salt Lake City**, 84138, 1203 Federal Bldg., 125 S. State St. (801) 524-5116.

**San Francisco**, 94102, Federal Bldg., Box 36013, 450 Golden Gate Ave., (415) 556-5860.

**San Juan, P.R.**, 00918, Room 659, Federal Bldg., Chardon Ave. (809) 753-4555.

**Savannah**, 31402, 222 U.S. Court-house, P.O. Box 9746, 125-29 Bull St. (912) 232-4321, Ext. 204.

**Seattle**, 98109, 706 Lake Union Bldg., 1700 Westlake Ave. North (206) 442-5615.